Clinical Lecture
ON
ATAXIC PARAPLEGIA.

Delivered at University College Hospital, Feb. 23rd, 1886,

BY W. R. GOWERS, M.D., F.R.C.P.,
ASSISTANT PROFESSOR OF CLINICAL MEDICINE.

GENTLEMEN,—As a definite name for a definite disease the term "ataxic paraplegia" is doubtless unfamiliar to you. It is probable, however, that in the course of your clinical work, especially in the out-patient room, you have met with examples of the malady, and it is not improbable that you have been puzzled by its somewhat anomalous features. The disease is, indeed, by no means rare. It is a somewhat common form of chronic palsy of the legs. We have now in the wards two well-marked cases, which afford us a good illustration of its characters and course. Although it is not a rare disease, you will find little about it in text-books. In text-books of general medicine you will probably find nothing; in works on diseases of the nervous system you may find some mention of it as the manifestation of combined sclerosis of the lateral and posterior columns, perhaps as a variety of locomotor ataxy or of spastic paraplegia. But the manifestations of the disease are so definite that it deserves separate description. The account I am about to give you is founded chiefly on a series of cases that have come under my own observation, of which the symptoms were uniform and characteristic. We shall see that there are reasons which make it desirable to call it by a name that is founded on its clinical characters, rather than on the pathological lesion that underlies these characters.

Of the two cases that are before you one is a man and the other is a woman. Thus the disease occurs in each sex, but it is much more frequent in men than in women. It is a disease chiefly of the middle period of adult life, beginning commonly between the ages of thirty and forty-five; the first symptoms occurred in the man at forty-one, in the woman at thirty-two. The earliest case I have known commenced at nineteen, the latest at fifty-five. Neurotic heredity is rare; it is to be traced only in a tenth of the cases, and is absent in both the patients before you. In neither of them is there a history of syphilis, and in this respect also they illustrate the common rule. It is as rare to have a history of constitutional syphilis in the subjects of ataxic paraplegia as it is common to have such a history in the subjects of pure locomotor ataxy. Among exciting causes, exposure to cold can be traced in some as a probable influence. In one young lady the first symptoms succeeded a season of balls, at which, when heated, she was in the habit of cooling herself at open windows, and, on reaching home, would often throw herself on the bed and sleep through the night or the morning in clothes saturated with perspiration. Mental distress and anxiety, especially coupled with over-exertion, have been the apparent cause in some cases. This woman noticed the first symptoms after the death of her mistress, whom she had nursed through a long and anxious illness. Rarely, a severe concussion of the spine has occurred some months before the onset. A concussion may induce paraplegia by actual injury, probably by causing minute extravasations, from which secondary inflammation spreads. But such paraplegia comes on in a few weeks, whereas, in the cases we are considering, the symptoms succeeded the injury after a long interval and then developed very slowly. The same sequence is seen in other degenerations of the spine, and it therefore seems probable that a concussion may cause derangement of the process of nutrition of the nerve elements, the effects of which are manifested only after it has slowly attained a considerable degree. In many cases, as in this man, no cause can be traced. A cause there must be, but its nature is such as to elude our search.

The onset of the symptoms is always gradual, and their progress is commonly slow. Even when it is steadily progressive, at no time stationary, years may pass before the power of walking is lost. This man can still walk, although with difficulty, and it is now eleven years since he could last say that he was well. The woman's symptoms commenced seven years ago, but it was only at Christmas last that she took to her bed. In very rare cases the onset has been less chronic, almost subacute, and the symptoms have attained a considerable degree of intensity in a few months. The first manifestation of the disease in almost all cases is in the legs, and the symptoms may remain limited to them throughout, or, as in these patients, may afterwards invade the arms in various degrees. The characteristic feature of the disease is a slow and simultaneous development of two symptoms — defect of power and defect of coördination, weakness and ataxy. The patient at first finds that he tires more readily than before; he is glad to ride distances which before it was a pleasure to him to walk. The clinical clerk who took this man's history has recognised the fact by noting as the earliest symptom "a tendency to frequent use of twopenny 'busses." As soon as the patient is conscious of weakness, he is conscious also of some unsteadiness. He notices it when he turns suddenly, when he walks in the dark or on an uneven pavement, or when, in order to wash his face, he shuts his eyes and bends forward. There are no pains in the legs. They may ache a little after walking, but there are scarcely ever the sharp pains which, as you know, are so common in tabes. There is sometimes a little dull pain in the back, and not unfrequently there is a good deal of aching pain in the sacral region, but that is all. The motor symptoms slowly increase. If you then see the patient, you will find distinct loss of power in the legs. You may, indeed, not discover it at first, for the patient as he sits may extend his legs with force; but if you carefully examine, as you should do, the power of each set of muscles, you will find that the flexors are distinctly weak, the flexors of the hip especially, the flexors of the knee in less degree. The fact of the defect is often, as it were, emphasised by being greater in one leg than in the other. But if you have often to search for the weakness, it is not so with the incoördination which usually obtrudes itself upon your notice. The patient's gait is distinctly unsteady; if he turns quickly he reels, and has to bring his foot suddenly to the ground to maintain his equilibrium and to save himself from falling. It may be impossible for him to stand with his feet together and eyes closed, and even with open eyes he oscillates, and the irregularity of the muscular contractions is shown, if the feet are bare, by the quick movement of the tendons on the dorsum of the foot. The incoördination may resemble perfectly that of many cases of tabes, although there is not the "high action" of the legs sometimes present in the latter disease. I have admitted this man into the hospital as an illustrative case, because he has been under my observation for many years, and I have been able to watch the slow course of his symptoms. It is now eight years since I first saw him, and at that time his gait was exactly like that of most tabetic patients. I remember often asking a student from what the man appeared to be suffering, and the answer always was "locomotor ataxy." This ataxy is not confined to locomotion. It is equally evident in the irregular movement of the leg, if, as the patient lies, he attempts to touch some object when his eyes are closed. If you should come to the conclusion that such a patient is suffering from locomotor ataxy, and proceed to confirm your diagnosis by testing the knee-jerk, you will discover at once the anomalous feature of the case. Instead of being lost, the knee-jerk is increased, and you are able without difficulty to obtain a foot clonus. Indeed, you can often obtain also a rectus clonus by suddenly depressing the patella, as the patient lies, and thus extending the rectus—always a proof of a great excess of the peculiar "myotatic" irritability on which these phenomena depend. You can obtain, as you see, both rectus and foot clonus in each of the patients before you. Thus, an increase of this irritability attends, in this disease, as it so often does, weakness of the legs, and it attends the weakness in spite of the existence of a symptom commonly associated with entire loss of these phenomena.

I told you that lightning pains are absent. I have, indeed, met with them in one case, but they were transient and ceased after a few months, not again to return. In harmony with the absence of these pains is the general integrity of sensation, which is not impaired upon either limbs or trunk. Sometimes the patient complains of subjective feelings of "numbness" or "tingling" in the

extremities, but there is no corresponding loss of sensation, or only a very slight and doubtful impairment of tactile sensibility on the fingers and toes, scarcely ever amounting to actual loss. Here, again, is another marked difference from tabes. Reflex action from the sole is also perfect and is commonly excessive. The arms are often free, but they sometimes present symptoms similar to those of the legs—incoördination of movement of the fingers, weakness, and increased myotatic irritability. Often, indeed, there is this increased irritability when the patient is conscious of no weakness, but you will then find, if you test power, that it is below the average. If the arms suffer, one is often affected in greater degree. In this woman there is very marked incoördination of movement of the right hand, and none of the left. In the man there is some incoördination of both hands. Sexual power is often lost early in the disease. The sphincters are frequently impaired, sometimes early, but the impairment rarely reaches a considerable degree. In the woman, when first admitted, there was well-marked reflex incontinence of urine. There was no persistent dribbling and no persistent distension of the bladder, but as soon as a certain quantity of urine had accumulated in it, the bladder was emptied involuntarily. The iris usually acts to light. It does so perfectly in each of the patients before you. I have seen loss of the light-reflex in two or three cases, and have once known accommodation to be lost, the action to light being normal. Optic nerve atrophy occurs only in very rare cases, less frequently than in tabes; I have seen one case in which there were indications of a retro-ocular axial neuritis. The external ocular muscles are usually normal, and there is no nystagmus. Slight impairment of articulation is not uncommon; sometimes there are irregular tremulous movements of the face resembling those of general paralysis, and this in cases in which there is no mental change. Westphal has observed marked ataxy of the facial muscles. As a rule the mental state is either normal or there is merely slight failure of memory. Undue frequency of the pulse is occasionally present, but is less common than in tabes.

As the disease increases the muscular power becomes more and more impaired, usually without much increase in the incoördination, which sinks into the background as the paralysis increases, and the patient has to have recourse to supports which at the same time afford him guidance. The increased myotatic irritability continues; stiffness and rigidity develop as its consequence. Thus the aspect of the patient comes to be that of spastic paraplegia, the feet drag as the patient walks, shake from clonus when he stops, and the legs are hauled forwards with visible effort at each step. Indications of unsteadiness may still be observed in isolated movements. This condition has been reached in each of these patients. In the woman the loss of power is so great that she can scarcely move her legs as she lies in bed; nevertheless, she can walk with assistance, because extensor spasm comes on and gives the legs the rigidity and firmness which the will cannot produce. The reflex mechanism on which this extensor spasm depends is probably that which is naturally involved in the act of standing, and it thus enables the patient to stand when voluntary power is insufficient for the purpose. But the unsteadiness still exists: if she closes her eyes she would fall at once were she not firmly held. In the man the palsy and rigidity have reached a much higher degree in the left leg than in the right. He can only walk with the help of crutches and by suspending the left foot in a sling from his shoulders, by the aid of which he can haul the leg forward, and then its rigidity enables it to bear some of the weight of the body; but if he shuts his eyes he falls at once. The spasm in the leg is very inconvenient to him, for it sometimes comes on while he is sitting, and the involuntary extension of the hip is so forcible that it is apt to make him slip off the chair on to the ground. In spite of the progress of the weakness, sensation usually continues normal: it is so in this woman; in the man there is the very trifling impairment of sensation I have just mentioned. There is no loss to pain or to temperature, and there is no absolute loss of tactile sensibility, but when he is touched on the toes he is not quite certain which toe is touched. The arms, if previously free, may suffer in the later stage of the disease, or they may remain throughout free from any symptoms of palsy or incoördination. Often, as in these two patients, there is slight ataxy in the arms, but no considerable impairment of power, even in the later stage of the disease. The reflex action of the pupils, unless early lost, continues normal throughout. There is, as a rule, no wasting of the muscles and no change in their electrical excitability. The symptoms present, in some cases, variations from this type. Sensation in the legs may be impaired and the knee-jerk may be lost. These cases are intermediate between the form now under consideration and pure tabes; they are, however, very rare, and do not constitute more than 5 per cent. of the cases in which ataxy and weakness come on together.

The disease has little tendency to cause death; indeed, the fatal cases have, for the most part, been untypical, and do not convey an accurate idea of the characters of the disease. The chief danger to life is from the accidents common to all chronic spinal affections, and especially from kidney disease secondary to retention. Among complications, the most important are mental changes resembling those of general paralysis of the insane, of which, indeed, this combined sclerosis may form part. Slight muscular atrophy sometimes occurs. Arthritis of doubtful significance has been once observed. A patient of Westphal's, who presented derangement of the sympathetic, died from peculiar spasm of the muscles of respiration. Visceral crises, however, are practically unknown.

What is the lesion that underlies these symptoms, thus complex and progressive? Our knowledge of the pathological anatomy of the disease is meagre, being limited to a few observations[1] on cases that have been, for the most part, more acute than the disease generally is, and also in some other respects untypical. Of the lesion in the common form of the disease, the course of which is very chronic, we possess scarcely any account. This is sufficiently explained by the fact that the disease has so little tendency to cause death. "Nec silet mors," the apt motto of the Pathological Society, is true chiefly of disease that kills. But the facts of fatal cases are sufficient to show us clearly the general character of the lesion. In all cases the spinal cord has presented sclerosis of both posterior and lateral columns; but the precise extent and degree of the degeneration seem subject to considerable variations. As a general rule, the sclerosis of the posterior columns differs from that of tabes in two particulars. First, it is not more intense, and often is less intense, in the lumbar than in the dorsal region of the cord. Sometimes, indeed, in the middle and lower parts of the lumbar region the posterior columns may be free from sclerosis, although it is considerable in the dorsal region and at the junction of this with the lumbar enlargement. The second difference is that the sclerosis has rarely the special intensity in the root-zone of the postero-external column that characterises the lesion of tabes. The part of the external column near the commissure and near the neck of the posterior horn usually remains free everywhere. Sometimes the degeneration does not extend up to the posterior surface of the cord; it may affect chiefly the middle three-fifths of the posterior columns. When the degeneration is considerable, the posterior median columns in the upper part of the cord may present the usual ascending degeneration of secondary origin. When the lesion is slight in degree in the lower half of the cord, there may be only a slight diffuse degeneration of these columns in the cervical region, similar to that elsewhere, and not the more intense limited affection of the median part that occurs when there is a considerable lesion of the column lower down. The degeneration in the lateral columns is also variable in extent and position, and is not often "systemic" in character—at least, it does not correspond to a single system of fibres. In one or two cases, indeed, the whole pyramidal tract, and this alone, has been degenerated; but more often the sclerosis, while intense in the pyramidal tract, also extends in front of this into the mixed zone of the lateral columns. A similar extension, I may remind you, is met with in the sclerosis that attends degeneration of the anterior cornua. The "lateral limiting layer," between the pyramidal tract and the grey matter, may be also invaded. The direct cerebellar tract often escapes. But in some cases there is a zone of sclerosis round the periphery of the cord, involving the cerebellar tract where this exists, and extending deeply into the lateral column in the position of the pyramidal tract. The latter has been found diseased, in some degree, in all cases; in several the extent of its degeneration has been greater in the lower part of the cord than in the upper, but

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in some it has been but slightly damaged. As in most other degenerative diseases of the cord, there may be some increase of connective tissue in the unaffected columns, and it may be so intense at some spots as to constitute areas of distinct sclerosis. As a rule, no morbid change has been recognised in the grey matter or in the membranes. In one case only was there slight meningitis. Disease of the ascending root of the fifth was found in a case in which there were corresponding symptoms. The peripheral nerves seem not to have been examined in any case. It is not likely that they are diseased. The muscles have been found normal.

(To be concluded.)

Remarks
ON
TREPHINING FOR EVACUATION OF INTRA-CRANIAL ABSCESS OCCURRING IN CONNEXION WITH SUPPURATIONS IN THE EAR;

WITH THREE CASES IN WHICH IT WAS PRACTISED.

BY J. W. HULKE, F.R.C.S., F.R.S.,
SURGEON TO THE MIDDLESEX AND ROYAL LONDON OPHTHALMIC HOSPITALS.

THE subject to which I invite attention is the question of trephining in cases of intra-cranial abscess occurring in connexion with suppurations in the middle and internal ear. That these contribute a large proportion to the total number of intra-cranial abscesses from all causes, and that they nearly always end in death, are facts so familiar to all that it has seemed to me unnecessary to illustrate them by statistics. So far as I know, the only exception to a fatal termination is where a sufficiently free outlet has been formed by carious perforation or absorption permitting the escape of pus from the abscess into the external auditory meatus, or through the mastoid or squamosal, at the outer surface of the skull. Instances of such fortunate termination are so extremely infrequent, so absolutely exceptional, that their occurrence affords no excuse for inactivity, no encouragement to trust to an expectant treatment. The silence respecting trephining in such cases observed by the text-books in current use here, on the European continent, and in America, is probably referable in part to existing uncertainty of diagnosis, and in part to too high an estimate of the dangers incidental to the operation. It must be frankly avowed that whilst the pathological anatomist can demonstrate the several conditions known as *meningitis*, in its two forms limited and diffuse, *thrombosis* of the cerebral sinuses, and *abscess* in the cerebrum or cerebellum, the clinicist, notwithstanding the recent advance in cerebral physiology and pathology, cannot yet with like certainty distinguish between these disorders. Moreover, his difficulties are not infrequently increased by their concurrence, as when thrombosis of sinuses coexists with meningitis, and either or both of the foregoing with cerebral or cerebellar abscess; and the task of discrimination is occasionally rendered yet more difficult when the symptoms of the local are overlaid by those expressive of the general disorder summed up under pyæmia and septicæmia. However, the fact that the clinicist is not yet in the position to form a certain judgment concerning the precise nature of the local disorder in a given case does not, in presence of the almost certainly fatal termination of otitic intra-cranial abscess when left to take its natural course, exonerate him from further efforts; when his judgment attains to a high degree of probability, the propriety of a surgical operation for the evacuation of the abscess should be fairly faced. It is obvious that against diffuse meningitis, thrombosis of sinuses, and nearly as certainly where pyæmia or septicæmia is present, the resources of surgery cannot avail; and that operative measures can only hold out promise of relief in instances of localised suppuration—in abscess. An attempt to formulate schemata for the differential diagnosis of the several disorders just mentioned is beyond the scope of this communication, and I will now only say that the formation of abscess is usually more insidious and its course more chronic than that of diffuse inflammation. Two symptoms especially characteristic of otitic intra-cranial abscess are an abnormally slow pulse and low temperature. These have also been on several occasions noticed by me in intra-cranial abscesses of traumatic origin.

In discussing with others the question of trephining, it has been objected that the diagnosis is too uncertain to justify it; the risk of setting up septic inflammation, of doing irreparable mechanical injury to the brain, and of causing serious hæmorrhage in an inaccessible locality where bleeding vessels cannot be secured, are so great and so evident that trephining can only be expected to hasten the fatal end. Some risk must be encountered, but this is greatly reduced by the observance of strict antisepsis and by a cautious method of operating. The bloodvessels in the dura mater will generally avoid injury by the trephine when this is worked with a light hand; and as they are immediately apparent when the dura mater is uncovered, they can be avoided when this membrane is incised, or, if cut, easily secured. Vessels more deeply placed, in pia mater or in brain, will also be usually pressed aside and remain unwounded where these latter parts are pierced with a trocar or a blunt-ended director—an instrument to be preferred to the aspirator, unless this is worked with a very slight degree of exhaustion. A high degree of exhaustion is unnecessary, for the pus within the skull stands under a much greater pressure than might be supposed; and it may even be injurious, since the consistence of the brain tissue allows it to be sucked through a tube of even moderate calibre; moreover, rapid and complete evacuation of an abscess may induce hæmorrhage. In the first of the following cases, where the lower part of the temporo-sphenoidal lobe, and in the second, where the cerebellum was deeply punctured, the tracks of the instrument were marked by only a little blood, and they were free from all signs of inflammation.

The presence of an intra-cranial abscess being suspected, the question of its situation next follows. Is it above or below the tentorium, in the temporo-sphenoidal lobe, or in the cerebellum? The want of leisure and opportunity have prevented me from testing by the statistics of recorded cases the relative frequency of the occurrence of abscess in these situations, and whether this is influenced by age. The impression left on my mind by the recollection of several dissections is that in the young abscess in the temporo-sphenoidal lobe is more frequent, whereas in adults the opposite occurs. Where hemiplegia or hemispasm are present, the presumption is in favour of the abscess being above rather than below the plane of the tentorium. Pain, and even tenderness, are of less value as localising symptoms. They may even lead to a mistake in diagnosis, as in the first of the following cases, where the pain was referred to a very tender spot above the ear, whilst the abscess was situated in the cerebellum; and in the second case, where pain was felt acutely in the occiput and the nape, whilst the abscess was in the temporo-sphenoidal lobe, over the tegmen tympani.

CASE 1. *Chronic Otorrhœa; Caries of the Petrosal; Abscess in the Cerebellum, erroneously supposed to be in the Temporo-sphenoidal Lobe; Puncture of the Lobe.*—B. A——, aged forty-five, a tall well-grown man, of good muscular development, a baker, was admitted into the Middlesex Hospital on Oct. 30th, 1885, under the care of Dr. Cayley. He complained of severe pain in the left half of his head, most intense in the occiput, radiating over the temporal and frontal regions. Immediately above the pinna of the left ear was a spot extremely tender on pressure. He said that firm pressure here caused increased pain in the head, which continued for two hours or more. There was also distinct but less acute tenderness above and behind the mastoid process. A fetid, fusiform discharge oozed from the left auditory meatus. The ticking of a watch, in contact, was inaudible by this ear. His face seemed to be slightly drawn towards the right, and the furrows in the left appeared less deep than those in the right side of the face. A slight deviation of the tongue towards the left was thought to be present, but respecting this there was some doubt. He could not close the left eyelid as tightly as the right. Mastication caused so much pain, referred to the temporo-maxillary joint, that for the last three weeks he had been obliged to abstain from solid food. Otorrhœa was present also on the right side; the hearing of this ear was impaired, but it still perceived the tick of a watch.

extremities, but there is no corresponding loss of sensation, or only a very slight and doubtful impairment of tactile sensibility on the fingers and toes, scarcely ever amounting to actual loss. Here, again, is another marked difference from tabes. Reflex action from the sole is also perfect and is commonly excessive. The arms are often free, but they sometimes present symptoms similar to those of the legs—incoördination of movement of the fingers, weakness, and increased myotatic irritability. Often, indeed, there is this increased irritability when the patient is conscious of no weakness, but you will then find, if you test power, that it is below the average. If the arms suffer, one is often affected in greater degree. In this woman there is very marked incoördination of movement of the right hand, and none of the left. In the man there is some incoördination of both hands. Sexual power is often lost early in the disease. The sphincters are frequently impaired, sometimes early, but the impairment rarely reaches a considerable degree. In the woman, when first admitted, there was well-marked reflex incontinence of urine. There was no persistent dribbling and no persistent distension of the bladder, but as soon as a certain quantity of urine had accumulated in it, the bladder was emptied involuntarily. The iris usually acts to light. It does so perfectly in each of the patients before you. I have seen loss of the light-reflex in two or three cases, and have once known accommodation to be lost, the action to light being normal. Optic nerve atrophy occurs only in very rare cases, less frequently than in tabes; I have seen one case in which there were indications of a retro-ocular axial neuritis. The external ocular muscles are usually normal, and there is no nystagmus. Slight impairment of articulation is not uncommon; sometimes there are irregular tremulous movements of the face resembling those of general paralysis, and this in cases in which there is no mental change. Westphal has observed marked ataxy of the facial muscles. As a rule the mental state is either normal or there is merely slight failure of memory. Undue frequency of the pulse is occasionally present, but is less common than in tabes.

As the disease increases the muscular power becomes more and more impaired, usually without much increase in the incoördination, which sinks into the background as the paralysis increases, and the patient has to have recourse to supports which at the same time afford him guidance. The increased myotatic irritability continues; stiffness and rigidity develop as its consequence. Thus the aspect of the patient comes to be that of spastic paraplegia, the feet drag as the patient walks, shake from clonus when he stops, and the legs are hauled forwards with visible effort at each step. Indications of unsteadiness may still be observed in isolated movements. This condition has been reached in each of these patients. In the woman the loss of power is so great that she can scarcely move her legs as she lies in bed; nevertheless, she can walk with assistance, because extensor spasm comes on and gives the legs the rigidity and firmness which the will cannot produce. The reflex mechanism on which this extensor spasm depends is probably that which is naturally involved in the act of standing, and it thus enables the patient to stand when voluntary power is insufficient for the purpose. But the unsteadiness still exists: if she closes her eyes she would fall at once were she not firmly held. In the man the palsy and rigidity have reached a much higher degree in the left leg than in the right. He can only walk with the help of crutches and by suspending the left foot in a sling from his shoulders, by the aid of which he can haul the leg forward, and then its rigidity enables it to bear some of the weight of the body; but if he shuts his eyes he falls at once. The spasm in the leg is very inconvenient to him, for it sometimes comes on while he is sitting, and the involuntary extension of the hip is so forcible that it is apt to make him slip off the chair on to the ground. In spite of the progress of the weakness, sensation usually continues normal: it is so in this woman; in the man there is the very trifling impairment of sensation I have just mentioned. There is no loss to pain or to temperature, and there is no absolute loss of tactile sensibility, but when he is touched on the toes he is not quite certain which toe is touched. The arms, if previously free, may suffer in the later stage of the disease, or they may remain throughout free from any symptoms of palsy or incoördination. Often, as in these two patients, there is slight ataxy in the arms, but no considerable impairment of power, even in the later stage of the disease. The reflex action of the pupils, unless early lost, continues normal throughout. There is, as a rule, no wasting of the muscles and no change in their electrical excitability. The symptoms present, in some cases, variations from this type. Sensation in the legs may be impaired and the knee-jerk may be lost. These cases are intermediate between the form now under consideration and pure tabes; they are, however, very rare, and do not constitute more than 5 per cent. of the cases in which ataxy and weakness come on together.

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What is the lesion that underlies these symptoms, thus complex and progressive? Our knowledge of the pathological anatomy of the disease is meagre, being limited to a few observations[1] on cases that have been, for the most part, more acute than the disease generally is, and also in some other respects untypical. Of the lesion in the common form of the disease, the course of which is very chronic, we possess scarcely any account. This is sufficiently explained by the fact that the disease has so little tendency to cause death. "Nec silet mors," the apt motto of the Pathological Society, is true chiefly of disease that kills. But the facts of fatal cases are sufficient to show us clearly the general character of the lesion. In all cases the spinal cord has presented sclerosis of both posterior and lateral columns; but the precise extent and degree of the degeneration seem subject to considerable variations. As a general rule, the sclerosis of the posterior columns differs from that of tabes in two particulars. First, it is not more intense, and often is less intense, in the lumbar than in the dorsal region of the cord. Sometimes, indeed, in the middle and lower parts of the lumbar region the posterior columns may be free from sclerosis, although it is considerable in the dorsal region and at the junction of this with the lumbar enlargement. The second difference is that the sclerosis has rarely the special intensity in the root-zone of the postero-external column that characterises the lesion of tabes. The part of the external column near the commissure and near the neck of the posterior horn usually remains free everywhere. Sometimes the degeneration does not extend up to the posterior surface of the cord; it may affect chiefly the middle three-fifths of the posterior columns. When the degeneration is considerable, the posterior median columns in the upper part of the cord may present the usual ascending degeneration of secondary origin. When the lesion is slight in degree in the lower half of the cord, there may be only a slight diffuse degeneration of these columns in the cervical region, similar to that elsewhere, and not the more intense limited affection of the median part that occurs when there is a considerable lesion of the column lower down. The degeneration in the lateral columns is also variable in extent and position, and is not often "systemic" in character—at least, it does not correspond to a single system of fibres. In one or two cases, indeed, the whole pyramidal tract, and this alone, has been degenerated; but more often the sclerosis, while intense in the pyramidal tract, also extends in front of this into the mixed zone of the lateral columns. A similar extension, I may remind you, is met with in the sclerosis that attends degeneration of the anterior cornua. The "lateral limiting layer," between the pyramidal tract and the grey matter, may be also invaded. The direct cerebellar tract often escapes. But in some cases there is a zone of sclerosis round the periphery of the cord, involving the cerebellar tract where this exists, and extending deeply into the lateral column in the position of the pyramidal tract. The latter has been found diseased, in some degree, in all cases; in several the extent of its degeneration has been greater in the lower part of the cord than in the upper, but

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BY J. W. HULKE, F.R.C.S., F.R.S.,

SURGEON TO THE MIDDLESEX AND ROYAL LONDON OPHTHALMIC HOSPITALS.

THE subject to which I invite attention is the question of trephining in cases of intra-cranial abscess occurring in connexion with suppurations in the middle and internal ear. That these contribute a large proportion to the total number of intra-cranial abscesses from all causes, and that they nearly always end in death, are facts so familiar to all that it has seemed to me unnecessary to illustrate them by statistics. So far as I know, the only exception to a fatal termination is where a sufficiently free outlet has been formed by carious perforation or absorption permitting the escape of pus from the abscess into the external auditory meatus, or through the mastoid or squamosal, at the outer surface of the skull. Instances of such fortunate termination are so extremely infrequent, so absolutely exceptional, that their occurrence affords no excuse for inactivity, no encouragement to trust to an expectant treatment. The silence respecting trephining in such cases observed by the text-books in current use here, on the European continent, and in America, is probably referable in part to existing uncertainty of diagnosis, and in part to too high an estimate of the dangers incidental to the operation. It must be frankly avowed that whilst the pathological anatomist can demonstrate the several conditions known as *meningitis*, in its two forms limited and diffuse, *thrombosis* of the cerebral sinuses, and *abscess* in the cerebrum or cerebellum, the clinicist, notwithstanding the recent advance in cerebral physiology and pathology, cannot yet with like certainty distinguish between these disorders. Moreover, his difficulties are not infrequently increased by their concurrence, as when thrombosis of sinuses coexists with meningitis, and either or both of the foregoing with cerebral or cerebellar abscess; and the task of discrimination is occasionally rendered yet more difficult when the symptoms of the local are overlaid by those expressive of the general disorder summed up under pyæmia and septicæmia. However, the fact that the clinicist is not yet in the position to form a certain judgment concerning the precise nature of the local disorder in a given case does not, in presence of the almost certainly fatal termination of otitic intra-cranial abscess when left to take its natural course, exonerate him from further efforts; when his judgment attains to a high degree of probability, the propriety of a surgical operation for the evacuation of the abscess should be fairly faced. It is obvious that against diffuse meningitis, thrombosis of sinuses, and nearly as certainly where pyæmia or septicæmia is present, the resources of surgery cannot avail; and that operative measures can only hold out promise of relief in instances of localised suppuration—in abscess. An attempt to formulate schemata for the differential diagnosis of the several disorders just mentioned is beyond the scope of this communication, and I will now only say that the formation of abscess is usually more insidious and its course more chronic than that of diffuse inflammation. Two symptoms especially characteristic of otitic intra-cranial abscess are an abnormally slow pulse and low temperature. These have also been on several occasions noticed by me in intra-cranial abscesses of traumatic origin.

In discussing with others the question of trephining, it has been objected that the diagnosis is too uncertain to justify it; the risk of setting up septic inflammation, of doing irreparable mechanical injury to the brain, and of causing serious hæmorrhage in an inaccessible locality where bleeding vessels cannot be secured, are so great and so evident that trephining can only be expected to hasten the fatal end. Some risk must be encountered, but this is greatly reduced by the observance of strict antisepsis and by a cautious method of operating. The bloodvessels in the dura mater will generally avoid injury by the trephine when this is worked with a light hand; and as they are immediately apparent when the dura mater is uncovered, they can be avoided when this membrane is incised, or, if cut, easily secured. Vessels more deeply placed, in pia mater or in brain, will also be usually pressed aside and remain unwounded where these latter parts are pierced with a trocar or a blunt-ended director—an instrument to be preferred to the aspirator, unless this is worked with a very slight degree of exhaustion. A high degree of exhaustion is unnecessary, for the pus within the skull stands under a much greater pressure than might be supposed; and it may even be injurious, since the consistence of the brain tissue allows it to be sucked through a tube of even moderate calibre; moreover, rapid and complete evacuation of an abscess may induce hæmorrhage. In the first of the following cases, where the lower part of the temporo-sphenoidal lobe, and in the second, where the cerebellum was deeply punctured, the tracks of the instrument were marked by only a little blood, and they were free from all signs of inflammation.

The presence of an intra-cranial abscess being suspected, the question of its situation next follows. Is it above or below the tentorium, in the temporo-sphenoidal lobe, or in the cerebellum? The want of leisure and opportunity have prevented me from testing by the statistics of recorded cases the relative frequency of the occurrence of abscess in these situations, and whether this is influenced by age. The impression left on my mind by the recollection of several dissections is that in the young abscess in the temporo-sphenoidal lobe is more frequent, whereas in adults the opposite occurs. Where hemiplegia or hemispasm are present, the presumption is in favour of the abscess being above rather than below the plane of the tentorium. Pain, and even tenderness, are of less value as localising symptoms. They may even lead to a mistake in diagnosis, as in the first of the following cases, where the pain was referred to a very tender spot above the ear, whilst the abscess was situated in the cerebellum; and in the second case, where pain was felt acutely in the occiput and the nape, whilst the abscess was in the temporo-sphenoidal lobe, over the tegmen tympani.

CASE 1. *Chronic Otorrhœa; Caries of the Petrosal; Abscess in the Cerebellum, erroneously supposed to be in the Temporo-sphenoidal Lobe; Puncture of the Lobe.*—B. A——, aged forty-five, a tall well-grown man, of good muscular development, a baker, was admitted into the Middlesex Hospital on Oct. 30th, 1885, under the care of Dr. Cayley. He complained of severe pain in the left half of his head, most intense in the occiput, radiating over the temporal and frontal regions. Immediately above the pinna of the left ear was a spot extremely tender on pressure. He said that firm pressure here caused increased pain in the head, which continued for two hours or more. There was also distinct but less acute tenderness above and behind the mastoid process. A fetid, fusiform discharge oozed from the left auditory meatus. The ticking of a watch, in contact, was inaudible by this ear. His face seemed to be slightly drawn towards the right, and the furrows in the left appeared less deep than those in the right side of the face. A slight deviation of the tongue towards the left was thought to be present, but respecting this there was some doubt. He could not close the left eyelid as tightly as the right. Mastication caused so much pain, referred to the temporo-maxillary joint, that for the last three weeks he had been obliged to abstain from solid food. Otorrhœa was present also on the right side; the hearing of this ear was impaired, but it still perceived the tick of a watch.

History.—The patient said he had had a purulent discharge from both ears since childhood, oozing constantly from the right and occasionally from the left ear. He had had scarlatina in childhood, but he did not know whether the affection of the ears followed or preceded this. Twenty years ago he had a polypus extracted from the left ear, and another was removed from it six years later. About three weeks previously he began to have severe aching in the left ear, and a few days later pain in the back of the head. This at first was accompanied by vomiting, which continued two days. The earache and headache were extremely severe, and at night so intense as to prevent sleep. The otorrhœa continued during this time, and it was sometimes tinged with blood.

From the time of the patient's admission into the hospital his condition continued to grow worse. His temperature on only one day touched 100° F. On Nov. 5th and 6th it was 97·6° and 97·2°; the pulse on these days being 52 and 54. On Nov. 7th, when I saw him in consultation with Dr. Cayley, he was unconscious to external impressions, but restless, often lifting his left hand to the same side of his head, as if he felt pain there. He swallowed with difficulty, and had lost control over his sphincters. Intra-cranial abscess was diagnosed; and in the absence of other localising symptoms the extreme tenderness *above* the ear was taken as an indication that the abscess was probably above the level of the attachment of the tentorium in the middle fossa. The squamosal was therefore perforated with a small trephine, the pin of which was set at the distance of one centimetre above the external auditory meatus. The dura mater was divided, and a blunt-ended director was passed through the opening towards the tegmen tympani until its end impinged upon the upper surface of the petrosal. No pus escaped. It was evident that the operation had failed of its purpose. The coma deepened. At 10 P.M. his lips were blue; his breathing slightly stertorous, with tracheal râles; pulse 140. Death occurred at 2.15 P.M next day.

The following extracts are taken from the record of the post-mortem examination made by Dr. Fowler: "There was a little hæmorrhage at the parts around the wound, but no inflammatory changes.....In the left cerebellar hemisphere, about the centre of its anterior border, where this is in contact with the petrous part of the temporal bone, there was an abscess the size of a walnut, containing thick greenish-yellow pus. This was in contact with a small aperture in the dura mater through which pus had burrowed from a carious portion of the temporal bone in connexion with disease of the internal ear. The walls of the abscess were almost smooth and fairly well defined. The left cerebellar hemisphere was considerably swollen, and it had evidently compressed the pons and medulla. There were no other marked changes in the brain."

The post-mortem inspection left no doubt in my mind that this abscess could have been tapped by trephining the occipital bone below the level of the attachment of the tentorium; so it has ever since been to me a subject of regret that this was not done immediately upon the failure of the puncture of the temporo-sphenoidal lobe. Whilst it failed to accomplish the purpose for which it was undertaken, the operation was not wholly without value, tending, as it did, to show its relatively slight dangers.

CASE 2. *Chronic Otorrhœa; Polypus; Carious Perforation of the Tegmen Tympani, and Abscess in the Temporo-sphenoidal Lobe.*—R. M——, aged nineteen, a maid-of-all-work, was admitted into the Middlesex Hospital, under Dr. Cayley, on March 24th last.

Present state.—A well-grown brunette. She has a dull apathetic expression, and complains of headache, most intense at the vertex and in the right side of the head. Her right ear is absolutely deaf. The orifice of the meatus externus is full of fetid pus, on removing which a polypus is apparent. At the bottom of the meatus bare bone is felt with a probe. There is great tenderness over the mastoid process, and in a less degree over other parts of the right side of the head. The right side of the face appears slightly wanting in expression. Temperature in the right axilla, 98°; in the left, 97·8°. Pulse 50, small, and slightly irregular. Her left ear is also very deaf.

History.—Her mother states that four years ago she attended the Throat and Ear Hospital in Golden-square for a discharge from both ears. These were syringed and her tonsils cut out. Four weeks ago she fell, striking the back of her head against a table. Her scalp was not cut, but she seemed dazed and stupid for a day or two after. During the past three weeks she had complained on and off of headache, and she had occasionally vomited. On March 18th, one week prior to her admission into the hospital, the headache became more intense, and she vomited more frequently, and the urgency of these symptoms continuing to increase, she was brought to the hospital.

At a consultation with Dr. Cayley on March 24th, the history and symptoms were considered to indicate with much probability an intra-cranial abscess, and the question of trephining was discussed. The extreme tenderness of the mastoid process, and the known fact that pus pent up in the antrum mastoideum does occasionally give rise to symptoms closely simulating those of intra-cranial abscess suggested the propriety of first exploring this process. Bearing in mind the great variation in the course of the lateral sinus, its occasional advance in front of its usual position, and its approach sometimes towards the outer shell of the process, which is exceptionally found defective over it, the perforation was made with a small gouge, in preference to the drill recommended by some authors. After chipping away the outer shell at a small circular spot limited in front by the posterior margin of the auditory meatus and above by the "supra-mastoid ridge," diploëtic tissue was exposed; it appeared healthy. The antrum mastoideum not coming into view, the excavation was cautiously continued until exposure of the dura mater forming the outer wall of the lateral sinus barred further advance. It was now demonstrated that the symptoms were not due to mastoid suppuration.

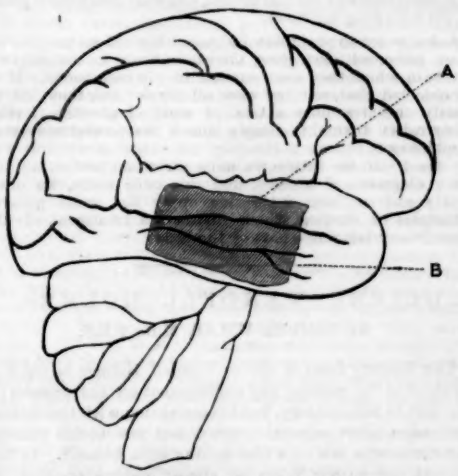
Two days later (March 26th), her condition having become more grave, it was decided to trephine the skull in search of abscess. Influenced by the history of a fall on the occiput, and by the recollection of the position of the abscess in the preceding case, in the absence of definite localising symptoms we decided to explore for abscess in the cerebellum. The spot chosen for perforating the occipital bone was situated about two centimetres behind and inwards from the mastoid process, the crown of the trephine encroaching on the inferior curved line. This spot was selected as being sufficiently beneath the lowest level of the horizontal part of the lateral sinus, and also sufficiently removed inwards from the descending part of the sinus. The dependent position of the spot was also thought advantageous for the drainage of the abscess, if found. The spot was easily uncovered by raising the scalp by a horseshoe incision, the ends of which lay slightly above the level of the external occipital tuberosity, and the bend slightly below the level of a line joining the apices of the mastoid processes. The muscles were divided by a cut down to the bone parallel to the "superior curved line," and, together with the periosteum, peeled down to a sufficient extent with a raspatory. The "inferior curved line," easily felt, proved a good guide to the selected spot. The severed occipital artery was easily secured with a pressure-forceps and afterwards tied. The bone, in this girl extremely thin, was easily perforated with a gouge. On dividing the dura mater a small quantity of colourless limpid cerebro-spinal fluid welled out. A grooved blunt director was then passed through the opening in the direction of the internal auditory meatus until it touched the posterior surface of the petrosal, and no pus escaping, the director was passed twice again in directions approximately parallel to the surface of the petrosal at slightly increasing distances from this. I was induced to do this by the recollection that in some instances a small band of seemingly unchanged cerebellar tissue has been found between the abscess and the petrosal. It was too evident that the exploration had failed. The flap was laid down, and the wound closed, provision being made for drainage. It was particularly noticed that no change in the pulse or respiration occurred during the operation.

March 27th: Temperature 97·2°; pulse 54. She vomited frequently in the course of the evening, and was in a drowsy condition through the night, but not asleep. She still complained of severe headache, but did not refer it particularly to any one part of the head. At 8 P.M., temperature 97·4°; pulse 58.—28th: At 10 P.M., temperature 97·4°; pulse 56. She passed the night without vomiting, and is now asking for food. She seems very drowsy, and says that her head is not so painful. Evening temperature 97·2°; pulse 54.—29th: At 10 A.M., temperature 97·2°; pulse 56. Vomited once yesterday. Passed a quiet night, and is now sleeping. At 8 P.M., temperature 97·4°; pulse 50.—31st: At 10 A.M., temperature 97·4°: pulse 56; respiration 16.

Passed a quiet night, sleeping. At 8 P.M., temperature 98·4°; pulse 52.

April 1st.—At 10 A.M., temperature 99·4°, pulse 54, small, irregular, and respiration 19. During the greater part of the last twenty-four hours she has been lying as if asleep, and now no longer answers when questioned. The right pupil is dilated and the left contracted. When the arms, usually semi-flexed, are laid in full extension, she moves the right arm better than the left, which latter is distinctly weaker. The eyelids twitch when the eyelashes or cheek are touched. Epigastric, abdominal, and plantar reflexes normal. No ankle clonus. During this examination the face became flushed and the breathing slightly stertorous. The left forearm was convulsively pronated, and both hands and the feet were spastically flexed. This attack quickly passed off, but was repeated four times in the course of the next hour, and whilst the wounds were being dressed. The ear still discharged fetid pus. The mastoid and occipital wounds are free from inflammatory swelling; about an ounce of laudable pus has escaped from the occipital drainage-tube. At the midday visit it was noticed that, whereas she moved spontaneously the right arm and withdrew it when it was slightly pinched, she moved the left arm only when firmly pinched, and this movement was feebly executed; paresis of this arm was present. She does not notice, even when very loudly addressed. Reluctant to abandon her without a further attempt for her relief, at 3.30 P.M. the squamosal was trephined above the external auditory meatus, the dura mater divided, and a grooved director passed in the direction of the tegmen tympani; about half an ounce of thick, fetid, dark greenish-yellow pus escaped. The opening in the dura mater was enlarged sufficiently to permit the insertion of a drainage-tube, and the wound was dressed. Owing to the greater thickness of the bone at the lower part of the circle, a thin scale of the inner table escaped division by the trephine and remained when the disc was lifted out. This was left *in situ*, as there seemed sufficient space for the drainage-tube above it, and because it was bordered by a branch of the middle meningeal artery, the division of which, not appearing necessary for the operation, was to be avoided. Shortly after the operation, when the patient had been returned to bed, the pulse was found to have risen to 100, and an hour later it had reached 128. At 7 P.M., temperature 100·2°; at 9.30 P.M., temperature 124°, respiration 22; restless, insensible; pupils dilated, equal; slight and very transient convulsions affecting the whole body. Death occurred at 5 A.M. on the 2nd.

The following extracts are from the record of the post-mortem examination, made twelve hours after death, on April 2nd, by Dr. Fowler: "Cerebral convolutions extremely flattened, and sulci effused. Flattening almost equal, and not more marked on the right than on the left side of the brain.....No evidence of meningitis except about the centre of the right middle temporo-sphenoidal convolutions, where over an area apparently about the size of a shilling the brain was adherent to the parietal layer of the arachnoid. This lobe (right temporo-sphenoidal) was very soft, and, in attempting to remove it, it broke down and some pus escaped. The left half of the brain was then removed, and subsequently the right half and the membranes. The upper surface of the right petrous bone close to the juncture with the squamous showed several areas where perforation had occurred, and where the pus was evidently present in the bone beneath and was welling through the perforations. There was another perforation at the junction of the squamosal and petrous bone in the posterior fossa of the skull where the lateral sinus grooves this latter. This had caused thrombosis of the sinus and complete obstruction of its lumen for a distance of nearly an inch. In the operation on the mastoid cells the inner table had been perforated exactly at the spot where it is covered by the lateral sinus, but the sinus had not been opened. The opening into the cerebellum was seen about the centre of the right lower fossa of the occipital bone, nearly equal to the calibre of a quill pen. The dura mater had been perforated through a smaller opening, and the cerebellum pierced in a forward direction. There was no sign of inflammation in the neighbourhood of the cerebellar wound, nor was there any abscess in the cerebellum. After hardening in spirit of wine the abscess in the temporo-sphenoidal lobe was opened, and found to be a well-defined cavity, the size of a walnut. It contained some creamy greenish-yellow pus, which had a fetid odour. This cavity had been punctured in the operation, but owing to the rent made in the brain substance in removing the brain from the skull, and also to the drainage-tube having been removed, the exact line of the puncture could not be seen. The trephine wound in the skull was incomplete, both tables having been removed in the upper half of the area,



Schema of situation and magnitude of abscess.

A, Half an inch from fissure. B, One inch and a half from tip of temporo-sphenoidal lobe. Roughly, two inches square. "It measured about two inches square, and extended to within an inch and a half of the tip of the temporo-sphenoidal lobe, and half an inch from the Sylvian fissure."

whilst over the lower half only the outer table had been taken away. The incision in the dura mater was much smaller than the opening in the bone, and across the part of the membrane exposed a vessel ran obliquely.

CASE 3. *Chronic Otorrhœa; Abscess in Cerebellum, evacuated by Trephining the Occipital Bone.*—On April 14th last I saw in consultation with Mr. J. A. Bloxam, and her medical attendants, Messrs. Montgomery and Plumbe, a lady, aged about fifty-five years, who had long been the subject of a purulent discharge from the right ear. She was comatose, her cheeks and lips were bluish, and she breathed heavily, but without stertor. She occasionally lifted her left hand to her mouth and left cheek and held it there; this was said to be an old habit. The mouth appeared to be slightly drawn to the left; this also had been observed long prior to the present illness. Shortly before we saw her she had tried to leave her bed, moving both legs. Pulse slow and temperature low.

Dr. Montgomery informed us that the present illness dated from a journey to London, sixteen days previously. On her return home she complained of aching in the right ear and right side of the head, with stiffness and uneasiness in the nape. These symptoms continued without notable variation until three or four days before we saw her, when a slight drowsiness was noticed, and she was advised to stay in bed, which she did reluctantly. The day before we met the drowsiness was less, and she wished to get up. On the morning of our consultation the drowsiness had again increased; it continued to deepen throughout the day, and had taken the form of coma before we saw her at 5.30 P.M. She had for many years had otorrhœa, and the ear had long been absolutely deaf.

It appeared to me that the history and present symptoms indicated abscess in the cerebellum—the depth of the coma, unattended with any evidence of left hemiplegia, was unfavourable to the supposition of abscess in the temporo-sphenoidal lobe,—and that in the presence of this its evacuation by trephining the occipital bone offered the only prospect, slender as it was, of saving life. This view was also that taken by Mr. Bloxam and the patient's medical attendants. It is unnecessary to detail the steps of the operation, as they differed in no essential from those practised in Case 2, except that the bone, unusually thick, was perforated with a trephine. The immediate effects of opening the abscess were striking. The pulse, when noted a few minutes after, was 72. The breathing, previously heavy,

had become easy; the cyanosis of the face disappeared; the coma was less deep. The patient moved, and, when disturbed by some mucus in the throat, rose on her elbows and made efforts to expel it. Dr. Montgomery wrote me that consciousness did not return, and that death took place in the following forenoon.

A desire not to prejudice judgment has led me to present these cases, without gloss, almost entirely in the original words in which they are recorded in my case-books. If it be objected that, as they were all three fatal, they fail to justify the treatment a trial of which I advocate, I may fairly rejoin that this simply shows the powerlessness of trephining to relieve at the very late stage at which it was practised. In the future we must strive at perfecting the early diagnosis of abscess, and this once made, we must boldly and without hesitation apply the same general principles of surgery which govern the treatment of abscess in any less noble part of the body.

OLIVER WENDELL HOLMES.

BY SAMUEL WILKS, M.D., F.R.S.

THE literary fame of Oliver Wendell Holmes is too well established to require any enforcement on the occasion of his visit to this country, but his connexion with the medical profession gives especial interest and zest to his writings for those who are of a like calling with himself. In this respect our author takes an almost unique position, for although it is true that literature has numbered amongst its devotees men who had been students of medicine, yet in most cases one profession has been discarded for the other, as in the examples of Smollett, Goldsmith, Keats, and others, where the doctor's craft was scarcely seen to gild their writings. With Wendell Holmes it is very different, for although he had long retired from the active pursuits of his profession he had retained until lately the professorial chair, and therefore ever had before him whatever the anatomy and physiology of the human body could teach, and their lessons are evident in every page of his writings. It is from this point of view I venture to give a few extracts from his works which come ready to hand as samples of his method. When it is remembered how intimately associated is the material structure of our frames with all those characteristics of men and women which we call mental, moral, or religious, it is obvious how much deeper and clearer must be the insight into human nature by one who has a profound knowledge of the sources from which many of them spring. How intimately states of health, forms of disease, or inherited temperaments affect the mental and moral qualities every medical man knows, but how often do we see them entirely overlooked or ignored by those who are regarded as our leading novelists or poets. At least this was so with many writers of the last generation, where the material basis and all the coarser functions of the body were hidden to give place to the more refined and elevated passions of the mind. A severance of this kind of natural phenomena has led to a reaction in the production of the realistic school, and we see the result in much of our modern literature, painting, and the drama. It has already reached its climax in certain French and English novels, in which the loathsomeness of the descriptions is usually sufficient to cause the reader to close their pages. Some of those who have protested against the modern realistic school have very unfairly dragged some of our profession into the mire, and have associated distinguished scientific men, whom they have been good enough to style materialists and vivisectionists, with those who can depict the horrible details of a murder on an immense canvas in the *salon*, or describe minutely the filthy particulars of the animal functions in a French novel. Wendell Holmes is a living protest against so gross a charge. These critics fall into the error of confounding the act of dissection with its exposure to the public eye. It need not here be said that those who wish to learn the intimate structure of the human body must remove the outer skin to enable them to discover the mechanism within, but the sight is not a pleasant one to the uninitiated eye, and the investigation is considerately kept from the public gaze. In a similar way, in order to obtain a perfect knowledge of all that pertains to the faculties, feelings, desires, and passions of the human being, the whole nature of men and women must be dissected or unravelled, so that those who have discovered the intimate connexion between the influences of a material kind and such passions as love and hatred are in the best position to portray human nature in all its attitudes. It by no means, however, follows that Zola need describe with the most minute details all the lower animal functions which the instincts command us to keep secret. Let him make the analysis if he pleases, and even use it in furtherance of his object, but he need not expose the details to public view. Balzac had no need to do this, and yet no writer shows a deeper insight into character as expressed in the ever-varying form and features.

Wendell Holmes has such a knowledge of the human frame as none but a good anatomist, physiologist, and pathologist could possess. His knowledge is apparent in every page of his writings, and gives to them their special value; yet a true artist's aim can be accomplished, and he no more ruffles the sensibilities than does Dickens in describing the very scum of our streets. In his last novel, "Mortal Antipathy," it is evident that he is cognisant, and has indeed a very large experience, of those animal and sexual instincts which go to make or mar much human happiness. That his mind is quite alive to the subject we see in his "Life of Emerson," where he says, "When Zola and his tribe cross the borders of science into its infected districts, leaving behind them the reserve and delicacy which the genuine scientific observer never forgets to carry with him, they disgust even those to whom the worst scenes they describe are too wretchedly familiar. The true realist is such a man as Parent du Chatelet, exploring all that most tries the senses and the sentiments, and reporting all truthfully, but soberly and chastely, without needless circumstance or picturesque embellishment, for a useful end, and not for a mere sensational effect." Although on the authority of our hero the dissection need not be exposed to public gaze, it does enable the investigator to understand more thoroughly the beings with which he is dealing, and to see how all mankind are one, and how "one touch of nature makes the whole world kin." With Wendell Holmes this has produced a sympathy with his fellow-creatures which is one of the most characteristic features of his writings. "I do not know," he says, "what special gifts have been granted or denied me, but this I know, that I am like so many other of my fellow-creatures that when I smile I feel as if they must; when I cry, I think their eyes fill; and it always seems to me that when I am most truly myself I come nearest to them, and am sure of being listened to by the brothers and sisters of the larger family into which I was born so long ago. I have often feared they might be tired of me and what I tell them. But then, perhaps, would come a letter from some quiet body in some out-of-the-way place which showed me that I had said something which another had often felt but never said; or told the secret of another's heart in unburdening my own." In another place he says: "A writer is like a lover; and a talk with the right listener is so like an arm-and-arm walk in the moonlight, with the soft heart-beat just felt through the folds of muslin and broadcloth. I have no doubt each one of us has somewhere our own facsimile, so like in all things except the accidents of condition, that we should love each other like a pair of twins if our nature could once fairly meet. I know I have my counterpart in some state of this Union. I feel sure that there is an Englishman somewhere precisely like myself (I hope he does not drop his H's)." In "The Poet," also, he says: "Self-revelation from unknown and sometimes nameless friends, who write from strange corners, where the winds have wafted some stray words of theirs, which have lighted in the minds and reached the hearts of those to whom they were as the angel that stirred Bethesda. This is the best reward of authorship; it may not imply much talent and literary excellence, but it means that your way of thinking and feeling is just what some of your fellow-creatures needed."

His general scientific culture, enabling him to take into his regard the whole organic world, gives a much wider range to his vision, so that he has a truer grasp of human character than most writers. It is for this special reason I have taken up my pen, for it has not been sufficiently appreciated by most of his literary critics. In an early page of "The Autocrat" he describes how he had seen singers and pianoforte players making such strange motions that he laughed at them, and asked himself where they picked up these fine ecstatic airs; but when he went home he found

his canary bird piping its little tunes and swimming and waving about with all the droopings and liftings and languishing side-turning of head that he had been laughing at. He then asked himself who taught all this, and found that he had erred in passing a judgment upon a creature made of finer clay than himself. Wendell Holmes sees that all nature is one, and the same laws are operating through not only the animal but the vegetable world. The following passage I have more than once read to mothers who had not perceived that a time comes when their daughters are pining to leave the nest: "You may know that from the earlier stages of development of almost any vegetable you only want air, water, light, and warmth. But by and by, if it is to have special complex principles as a part of its organisation, they must be supplied by the soil: your peas will crack if the root of the tree gets no iron; your asparagus bed wants salt as much as you do. Just at the period of adolescence the mind often suddenly begins to come into flower and to set its fruit. Then it is that many young natures, having exhausted the spiritual soil around them of all it contains of the elements they demand, wither away undeveloped and uncoloured unless they are transplanted." In another place he says men often remind him of pears coming to maturity: "Some are ripe at twenty, like human jargonelles, and must be made the most of, for their day is soon over; some come into their perfect condition late, like the autumn kinds, and they last better than the summer fruit; and some, like the winter Nelis, have been hard and uninviting until all the rest have had their season, yet their glow and perfume last long after the frost and snow have done their worst with the orchards." The subject of evolution is before him when he describes an old black woman, "bent up, wrinkled, yellow-eyed, with long upper lip, projecting jaws, retreating chin, still, meek features, long arms, large flat hands, with uncoloured palms and slightly webbed fingers; it was impossible not to see in this old creature a hint of the gradation by which life climbs up through the lower natures to the highest human developments." In "The Poet" he says: "The scientific study of man is the most difficult of all branches of knowledge. It requires in the first place an entirely new terminology, to get rid of that enormous load of prejudices with which every term applied to the malformation, the functional disturbances, and the organic diseases of the moral nature is at present burdened. Take that one word 'sin,' for instance: all those who have studied the subject from nature and not from books, know perfectly well that a certain fraction of what is so called is nothing more or less than a symptom of hysteria; that another fraction is the index of a limited degree of insanity; that still another is the result of a congenital tendency which removes the act we sit in judgment upon from the sphere of self-determination, if not entirely, at least to such an extent that the subject of the tendency cannot be judged by any normal standard." In another place he says: "You must have comparative theology as well as comparative anatomy. What would you make of a cat's little good-for-nothing collar-bone if you did not know that the same bone means a good deal in other creatures. You cannot know too much of your race and its beliefs, if you want to know anything about your Maker. I never found but one sect large enough to hold the whole of me." "And may I ask what that was?" "The human sect, including cannibals and all." Running through all his writings is the horror expressed at the idea of responsibility being attached to us for the sins of our forefathers. "Elsie Venner" was written with a theological moral to show his disbelief in a new-born infant being responsible for other people's acts, and suggests that Æsop's fable of the "Wolf and the Lamb" may have been written to denounce such a doctrine. Speaking of his heroine in the "Guardian Angel," he says: "The instincts and qualities belonging to the ancestral traits which predominated in the conflicts of mingled lives lay in the child in embryo waiting to come to maturity. It was as when several grafts bearing fruit that ripens at different times are growing upon the same stock. Her earlier impulses may have been derived directly from her father and mother, but all the ancestors who have been mentioned, and more or less obscurely many others, came uppermost in their time before the absolute and total result of their several forces had found its equilibrium in the character by which she was to be known as an individual. These inherited impulses were therefore many, conflicting, some of them dangerous; the World, the Flesh, and the Devil had mortgages on her life before its deed was put into her hands." In the same train of thought, he says: "So much are our minds alike, and yet you and I think we are peculiar, and that Nature broke her jelly-mould after shaping our cerebral convolutions."

Not only does Wendell Holmes make use of his professional knowledge in the portrayal of character, but he prominently brings forward the medical man in his various writings as one of the most important elements in the social community. He makes him honest, kind-hearted, and possessed of more than ordinary worldly wisdom. The following is from "Elsie Venner": "I have heard it said that the art of healing makes men hard-hearted and indifferent to human suffering. I am willing to own that there is often a professional hardness in surgeons, just as there is in theologians, only much less in degree than in these last. While I am writing this paragraph there passes by my window on his daily errand of duty, not seeing me, though I catch a glimpse of his manly features through the oval glass of his chaise as he rides by, a surgeon of skill and standing, so friendly, so modest, so tender-hearted in all his ways, that if he had not approved himself at once adroit and firm, one would have said that he was of too kindly a mould to be the minister of pain, even if it were saving pain. You may be sure that some men, even amongst those who have chosen the task of pruning their fellow-creatures, grow more and more thoughtful and truly compassionate in the midst of their cruel experience. They become less nervous, but more sympathetic. They have a truer sensibility for others' pain, the more they study pain and disease by the light of science." His remarks about medical men are always to the point. He says: "If you are to make choice of a physician, be sure you get one, if possible, with a cheerful and serene countenance. A physician is not, at least ought not to be, an executioner; and a sentence of death on his face is as bad as a warrant of execution signed by the governor. As a general rule, no man has a right to tell another by word or look that he is going to die. If you will only let nature and the God of nature alone, persons will commonly learn their condition as early as they ought to know it, and not to be cheated out of their natural birthright of hope and recovery." This advice by no means prevents his perceiving the moment when the doctor's presence may give place to that of others, for he says: "Do not overlook the desire for spiritual advice and consolation which patients sometimes feel, for as part of medical treatment it is the physician's business to detect the hidden longing for the food of the soul as much as for any form of bodily nourishment." In speaking of the different features of persons, he says: "It is the same thing with a patient: his disease has features of its own; there never was, and never will be, another case in all respects exactly like it. If a doctor has science without common sense, he treats a fever, but not this man's fever; if he has common sense without science, he treats this man's fever without knowing the general laws that govern all fevers and all vital movements. The men who have science only begin too far back, and before they get as far as the case in hand the patient has very likely gone to visit his deceased relatives." In one of his novels he describes the doctor as "sixty-three years old, a bald crown, as every doctor should have; a consulting practitioner's mouth—that is, movable round the corners while the case is under examination, but both corners well drawn down and kept so when the final opinion is made up. ..... Some very silly people thought the old doctor did not believe in medicine because he gave less than certain poor half-taught creatures in the smaller neighbouring towns, who took advantage of people's sickness to disgust and disturb them with all manner of ill-smelling and ill-behaving drugs. To tell the truth, he hated to give anything noxious or loathsome to those who were uncomfortable enough already, unless he was very sure it would do good; in which case he never played with drugs, but gave good, honest, efficient doses." His medical or physiological knowledge is constantly cropping up in his descriptions of persons and their doings: "Ah! it is the pale passions which are the fiercest; it is the violence of the chill that gives the measure of the fever. The fighting boy of our school always turned white when he went out to a pitched battle with the bully of some neighbouring village; but we know what his bloodless cheeks meant: the blood was all in his stout heart; he was a slight boy, and there was not enough to redden his face and fill his heart both at once." A poor fellow who is ill and full of pain is not in a con-

dition to judge fairly, and his friends cannot accept his verdict: "Many an honest ignorant man has given us pathology when he thought he was giving us psychology. It is a remark which I have heard from the wise patriarch of the medical profession among us, that the moral condition of patients with disease *above* the great breathing muscle—the diaphragm—is much more hopeful than that of patients with disease *below* it—in the digestive organs." In speaking of poor little children, who are often made the subjects of persecution by well-meaning religious people, Holmes says of one of them who had escaped: "The child would have died, no doubt; and if properly managed, might have added another to the long catalogue of wasting children who have been so cruelly played upon by spiritual physiologists, often with the best intentions, as ever the subjects of a rare disease by the curious students of science. ..... I have no doubt that disgust is implanted in the minds of many healthy children by early surfeits of pathological piety. I do verily believe that He who took children in His arms and blessed them, loved the healthiest and most playful of them just as well as those who were richest in the tuberculous virtues." He uses similar medical expressions in speaking of a girl who was in a prolonged hysterical state: "The poor little soul had been in one of those trances that belong to the spiritual pathology of higher natures, mostly those of women." That he knows, however, what hysteria is the following will prove: "The young girl looks innocent enough; but what does a blush prove, and what does its absence prove, on one of those innocent faces? There is nothing in all this world that can lie and cheat like the face and the tongue of a young girl. Just give her a little touch of hysteria—I don't mean enough of it to make her friends call the doctor in, but a slight hint of it in the nervous system,—and Machiavelli might take lessons of her."

The study of women in all their nervous vagaries has been a favourite one with Holmes, and he has a humorous and telling way of exemplifying great truths as few other writers have. Everyone knows how in emotional conditions laughing and crying are associated, or that allied movements of the chest are the manifestations of both of them. Holmes puts it thus: "Laughter and tears are meant to turn the wheels of the same machinery of sensibility—one is wind power and the other water power, that is all." He is very fond of likening the human form to a machine, thus: "Our brains are seventy year clocks. The Angel of Life winds them up once for all, then closes the case and gives the key into the hand of the Angel of the Resurrection. Tic-tac! tic-tac! go the wheels of thought; our will cannot stop them; they cannot stop themselves; sleep cannot still them; madness only makes them go faster; death alone can break into the case, and, seizing the even-swinging pendulum which we call the heart, silence at last the clicking of the terrible escapement we have carried so long beneath our wrinkled foreheads."

> "Then mark the cloven sphere that holds
> All thought in its mysterious folds,
> That feels sensation's faintest thrill,
> And flashes forth the sovereign will;
> Think on the stormy world that dwells,
> Locked in its dim and clustering cells,
> The lightning gleams of power it sheds
> Along its hollow glassy threads."

The expressions gained from medicine are often very applicable and amusing. Holmes says when he was young he always avoided a story with a moral, and yet in his later years he had written a couple of "medicated novels": "Now take a poet like Cowper; he had a mental neuralgia a great deal worse in many respects than tic doloureux, confined to the face.....Many women die worried out of life by the perpetual teasing of an inflamed neuralgic conscience." At an entertainment he speaks of the first laugh which "broke out as premature; it was a sporadic laugh, and did not become epidemic." He is too polite and too loyal to the profession to make a coarse joke at its expense, but in speaking of a lady in one of his works he says, "Her daughter had also married well, to a member of what we may call the post-medical profession—that, namely, which deals with the mortal frame after the practitioners of the healing art have done with it and taken their leave." His allusions are often like this, merely suggestive, but consequently the more humorous, as when speaking of the old hall "with the sculptured unpunishable cherubs over its portal." Wendell Holmes has written very little which can be called purely medical. Some years ago he contributed to journals papers on puerperal fever and on the microscope. He coined, I believe, the term *cutis ænea* for Addison's disease. His other writings were of a literary kind, but many tinctured by, if not founded on, his physiological reflections; as, for example, a very interesting article on the "Physiology of Versification and the Harmonies of Organic and Animal Life," showing how rhythm, metre, accent, &c., depend on respiration and the circulation.

As the subject of wine-drinking is always under discussion, we will hear what our author says in its favour in one respect—that is, its use at dinner in equalising divergent tempers and rubbing off asperities: "Whatever may be the hygienic advantages or disadvantages of wine, I, for one, except for particular ends, believe in water, and, I blush to say it, in black tea; there is no doubt about its being the grand specific against dull dinners. A score of people come together in all moods of mind and body. The problem is, in the space of one hour, more or less, to bring them all into the same condition of slightly exalted life. Food alone is enough for one person, perhaps talk alone for another; but the grand equaliser and fraterniser which works up the radiators to their maximum radiation, and the absorbents to their maximum receptivity, is now just where it was when when six great vessels containing water were changed into the best of wine."

Wendell Holmes has been called poet, litterateur, and scientist, and this combination of talents in the same man proves that science and letters need not be divorced. It is a melancholy thing to observe with what distaste many literary men regard what they call science, and how they associate with it all that is degrading and unrefined. Goethe stands out a grand example that there is no necessary antagonism between the two; and now we have Holmes, a living man, who possesses to a large extent a knowledge of all the material facts belonging to man's nature, whilst he, nevertheless, can carry them into the higher regions of poetry and religion. He himself is aware of this feeling which exists amongst men of letters and poets, for in his "Life of Emerson" he speaks of poets looking askance at science, and how Emerson contrasts learned men with their glasses with the sons of nature, much to the disadvantage of the microscopic observers. Holmes says that he notices the poet is curious and asks all manner of questions, but never thinks of waiting for the answer, still less of torturing nature to get at it. Emerson wonders, for instance, when looking at flowers, "why nature loves the number five," but leaves his note of interrogation without troubling himself any further. Wendell Holmes shows that this might have been answered without any loss to his poetical mood, for, speaking of a character in "The Guardian Angel," he says: "It seemed as if nothing of all that he met in his daily life was uncommon or unclean to him, for there was no mordant in his nature for what was coarse or vile, and all else he could not help idealising into its own conception of itself, so to speak. He loved the leaf after its kind as well as the flower, and the root as well as the leaf, and did not exhaust his capacity of affection or admiration on the blossom, upon which his friend the poet lavished the wealth of his verse." No writer that I am acquainted with can combine like Wendell Holmes the real facts of nature with all which religion or poetry is craving after. He can describe the burial of the young girl under the tree, together with the decomposition of the body, and the further chemical changes which tend to the growth of the plant; and with this he does not hide ideas which might suit the believer in metempsychosis or the Christian:—

> "At last the rootlets of the trees
> Shall find the prison where she lies,
> And bear the buried dust they seize
> In leaves and blossoms to the skies:
> So may the soul that warm'd it rise."

Probably all that I have said and all the quotations which I have given are known to the admirers of Wendell Holmes, but there are many I find in our profession who are less acquainted with his works, and are ready to applaud because one amongst their number has distinguished himself outside medicine in the walks of literature. It is, however, because he has combined two professions, or rather made use of his medical learning in the portraiture of character, and thus in my opinion elevated the standpoint of the novel writer, that his superexcellence is seen. In this respect Dr. Oliver Wendell Holmes stands unique. I have no hesitation in stating my belief that the raciness of his writings with the subtlety of thought comparable

only with "Tristram Shandy," as being ever true to nature, will make them always live. The man himself has ever been the subject of love and affection. The words of the Laureate might well apply to him:—

> "A life that all the muses deck'd
> With gifts of grace, that might express
> All-comprehensive tenderness,
> All-subtilising intellect."

CALCULUS IN A CHILD, REMOVED BY SUPRA-PUBIC CYSTOTOMY, FOLLOWED BY PRIMARY UNION.

By ROBERT WILLIAM PARKER,
SURGEON TO THE EAST LONDON HOSPITAL FOR CHILDREN.

THE following case seems worthy of record at a time when supra-pubic cystotomy is again on its trial. The little patient first came under my observation at the hospital in February last: he was then suffering from severe whooping-cough. Although his stone symptoms were very marked and sometimes painful, I thought it wise, nevertheless, to postpone the operation until the cough was better. In part perhaps owing to the long cold winter, little or no improvement in the cough took place until towards May; then it began to diminish, and on June 1st he was admitted. At this time he was a small, rickety, undergrown, anæmic child, just under three years of age, and could hardly walk. He was a native of the neighbourhood. For ten months past he had been noticed to pull at the prepuce a good deal; for seven months there had been increased frequency in micturition, with some straining during the act, but never any sudden arrest in the flow. The urine was said to get "thick on standing, to be often offensive, and never to have contained any blood." After his admission the urine was found to have a neutral reaction, and on standing threw down a considerable sediment of urate of ammonium. There was no albumen, and the urine was not offensive.

On June 4th, the usual preliminary enemata having been previously carried out, I performed supra-pubic cystotomy. The rectum was inflated with an indiarubber bag, the bladder distended with a warm solution of boric acid and retained by an elastic ligature placed round the root of the penis. The bladder was quickly reached and exposed through a median incision; a curved needle was passed through its coats on each side of the median line armed with silk, which was then used to raise and steady the bladder, and in some measure to retract the orifice of the incision which was now made into it with a small scalpel. The stone was quickly withdrawn by means of a small lithotomy forceps. After this, the cavity of the bladder was explored with the finger to make sure that it was empty. A catheter was passed through the urethra, and a quantity of warm boracic solution injected in order to wash out any blood-clots and for the purpose of thoroughly purifying the wound. My next care was to carefully close the incision into the bladder; this I did by several sutures of fine chromic gut, after which the silk threads (temporarily put in to hold and steady the bladder) were withdrawn. The bladder now gradually contracted; the edges of the rectus muscles were brought together, and finally those of the incision through the external abdominal wall. A sprinkling of fine iodoform was applied to complete the antiseptic precautions; over this a pad of lint and a quantity of corrosive absorbent wool were fastened on with a flannel bandage. He was given tincture of opium and kept very quiet for some hours after the operation. The dressing, having remained quite dry, was not changed for forty-eight hours. He had passed urine per urethram in natural quantity without effort or pain. On the fourth day after operation, the dressing was again changed. The wound being apparently healed, the external sutures were removed, and a broad band of fenestrated strapping was applied. The urine was of neutral reaction, and did not contain any albumen. The temperature remained normal throughout; the union gradually became firmer, was fully cicatrised in a fortnight, and the boy discharged well on June 20th, sixteen days after the operation.

I report this case of primary union after supra-pubic cystotomy, though it is a solitary case—I might almost say a unique one,—as a sample of what is possible, and what therefore we should endeavour to strive after; while I feel, nevertheless, that this standard is rather too high a one for the generality of cases. In a former case, operated upon two or three months ago, I carefully closed the external incisions, putting a soft catheter through the urethra into the bladder with the intention of keeping the bladder quite empty and contracted, in the hope that thus the wound into its walls would close spontaneously. But I was disappointed; the vesical wound did not close, as urine began to dribble through it within a few hours. Besides this, the temperature rose to 102° F., and remained high, and the boy was very restless and uncomfortable. I attributed all this to the presence of the catheter, their disappearance on its withdrawal confirming this view. The case subsequently did very well; the incisions healed by granulation, but upwards of a month elapsed before they were quite repaired.

It appears to me, in the light of these cases, that when the tissues are healthy, as in these young subjects, an attempt to secure primary union should be made by carefully suturing the bladder, by a judicious use of sedatives, and by abstaining from all interference with the urethra. A catheter in the urethra causes as much irritation in a child as in an adult (a fact I had not sufficiently considered in my first case), and brings about those conditions, fever and restlessness, which are almost incompatible with primary union. Moreover, the mechanism of micturition seems to be interfered with. The boy, in whose case I left a catheter in the urethra, did not pass any urine per urethram for many days after the catheter had been finally discarded. Whereas in the case now under notice, thanks to the closed bladder and the absence of irritation, urine was voided normally from the first.

It may be asked why I discarded the old-established operation in favour of a new one, still on its trial. I can only reply that, in my judgment, the new operation has very much in its favour to recommend its general adoption: the high operation can be performed without danger to any important structures, whereas lateral lithotomy, even when done with anatomical accuracy, is a "leap in the dark," and cannot be performed without cutting in the close proximity of very important physiological structures one or other of which may possibly be wounded. I am not aware that primary union after lateral lithotomy has ever occurred, even by chance. If this case of mine proves to be a solitary one, it nevertheless shows what is possible after supra-pubic cystotomy. I was ably assisted at the operation by the resident medical officer, Mr. Battams; and I am indebted also to Dr. Richards, resident clinical assistant, for anæsthetising the patient and for his careful record of the case.

Old Cavendish-street, W.

A CASE OF

TRAUMATIC STRICTURE OF THE URETHRA, TREATED BY INTERNAL URETHROTOMY AND CONTINUOUS DILATATION.

By C. YELVERTON PEARSON, M.D., F.R.C.S.E.,
PROFESSOR OF MATERIA MEDICA IN QUEEN'S COLLEGE, CORK; ASSISTANT-SURGEON TO THE NORTH CHARITABLE INFIRMARY AND CITY OF CORK HOSPITAL, ETC.

OWING to the few cases recorded in which the operation of internal urethrotomy has been undertaken for the relief of traumatic stricture, and the remarkably successful result which followed its performance under what I think may be regarded as rather unfavourable circumstances, I am induced to believe that the following case is one which will be read with attention by those who take an interest in urethral surgery.

C. T——, aged twenty-six, boiler-maker, presented himself on Aug. 17th, 1885, at the out-patient department of the North Charitable Infirmary. On the afternoon of the previous day he had fallen from a plank a distance of over four feet and came astride an iron bar. Immediately after the injury blood flowed freely from the urethra, and continued to do so for some time afterwards; he also passed very bloody urine each time he micturated. On examining the perineum, it was found to be slightly ecchymosed, as was also the back portion of the scrotum. There was no tume-

faction or other evidence of urinary extravasation. Since the accident occurred there had been no difficulty in passing urine, but the act of micturition was attended with considerable pain, and was both preceded and followed by urethral hæmorrhage. I arrived at the conclusion that the patient was suffering from partial laceration of the urethra. I ordered him to be immediately admitted into hospital, and (as the surgeon for the day had left) gave instructions for him to have a warm bath, and a draught containing twenty minims of sedative solution of opium and ten minims of tincture of belladonna, to be repeated every six hours; also, in case retention occurred, to have a No. 10 gum-elastic catheter (with stilet) passed, and tied in.

On arriving at the hospital the following morning, the clinical clerk informed me that on the previous evening, owing to retention, the instrument had been passed, but was removed when the bladder had been emptied; its use had not been attended with any difficulty or hæmorrhage, and the patient, finding himself subsequently able to pass urine free from blood, had (much to my astonishment) left the hospital early that morning. I naturally anticipated that he would reappear on some future occasion. In this I was not mistaken, as he came to my house on Sept 22nd, complaining of great difficulty in passing urine, and said there was much diminution in the size of the stream, which conditions were becoming rapidly more marked during the past week. On endeavouring to pass a No. 6 English gum-elastic instrument, it was abruptly arrested at the bulbous portion of the urethra. I now tried various instruments of smaller size, and ultimately succeeded in passing a No. 4 French bougie (about No. 1 English), and this was tightly grasped. I now informed the patient that his condition required prompt and careful treatment, and strongly urged him to go into hospital and submit to an operation; this he refused to do, as he said he was engaged at some special work, which he would lose if he did not return to it immediately; he, however, promised to come to me twice a week to have instruments passed, but could not do so more frequently, owing to his business being at a considerable distance. He continued to attend for a few weeks, and I succeeded in increasing the calibre of the stricture to No. 7 French (between 2 and 3 English), but could not get beyond this. I also noticed that the instrument passed with great difficulty through the membranous portion of the urethra. He now said that he had much inconvenience in attending, but could continue to do so once a week. I told him that I did not think the occasional passage of instruments would improve his condition any further, and that he must ultimately submit to an operation. I also gave him Nos. 5 and 6 French bougies, which I instructed him how to pass for himself every other day. He continued this mode of treatment up to the middle of November, when, owing to his contract being fulfilled, he "went on the spree," and came to me on the evening of Nov. 26th, suffering from retention, great pain, and an over-distended bladder. I endeavoured to pass an instrument of the smallest size, but was unable to do so. I then gave him a note to the house-surgeon of the North Infirmary, ordering a warm bath and full opiate, and saying that, if he failed in relieving him, I should be sent for. The house-surgeon, not finding the above measures succeed, tried to pass a fine catheter, but could not do so, and, not wishing to disturb me at such a late hour, tried a second bath; this proved successful, but the patient, finding himself able to pass urine in the morning, left the hospital. He again took drink and reappeared in the afternoon suffering from retention, when he had a warm bath, and while in it a fine catheter was passed and tied in; the patient, however, removed it himself in the morning and again left the hospital. He came to my study in the afternoon and inquired into the nature of the operation that I had recommended. I strongly urged him to have Syme's operation performed, but he strongly objected to any such severe measure. I then explained to him that an *internal* operation might be done, but I could not guarantee such a successful result as I anticipated from the former. He consented to submit to internal urethrotomy, but disliked so much remaining in hospital that I undertook to perform it at his own home. Being anxious, if possible, to divide the stricture from behind forwards, I determined to first try continuous dilatation for a few days. On Nov. 30th I accordingly tied in a No. 3 French catheter, which was the largest I could pass. As the urine did not flow freely enough through this, the patient had to remove it during the night. On the following day I passed a No. 1 English gum-elastic; on Dec. 2nd I changed this for a No. 3; on Dec. 3rd I got in a No. 5, and promised to operate the following day, as the subject of my treatment was getting highly impatient at the delay.

Operation.—On the morning of Dec. 4th, the patient being fully under the influence of chloroform, I first tried to pass a No. 6 catheter, but could not, showing that the No. 5 had effected little or no dilatation since the previous day. I then introduced Sir H. Thompson's modification of Civiale's urethrotome, and passed it through a short stricture situated in the anterior part of the bulb, but was unable to get it through a second one, commencing probably at the junction of the membranous with the bulbous urethra. On withdrawing the instrument one-third of an inch, it was arrested by the anterior stricture; this I freely divided from behind forwards. I now introduced the staff of a Teevan's urethrotome, and then, as urine appeared from the groove, passed down the concealed blade to the seat of stricture. This I attempted to divide, but at first failed to do so, the stricture apparently being pushed backwards by the instrument, notwithstanding that the penis was kept on the stretch. I then directed my assistant to extend it still more forcibly, and after another trial succeeded, though great force had to be employed, the stricture cutting like cartilage. On withdrawing the instrument there was a moderate amount of hæmorrhage, which soon ceased. Finding the meatus congenitally contracted, I incised it, and then tried to pass a large curved metalic sound, but failed to get it through the membranous portion. I again introduced Thompson's urethrotome, and this time it passed readily through the second stricture, which I now divided on the floor from behind forwards. I again attempted to pass the large metallic sound, but could not do so. I also failed to pass a large-sized elastic catheter. Not having intermediate instruments at hand, I introduced a No. 6 English gum-elastic catheter, and tied it in. A half-grain morphia suppository being placed in the rectum, the patient was put to bed, and ordered a draught containing fifteen minims of sedative solution of opium, to be given in six hours after, and to be repeated every sixth hour if necessary.

The following day (Dec. 5th), finding the patient in a most satisfactory condition, able to urinate easily through the catheter, and that no urine flowed by the side of it, I determined to leave it undisturbed.—Dec. 6th: Withdrew the No. 6, and introduced a No. 8, without encountering the slightest difficulty or obstruction.—7th: Removed the No. 8, and passed a No. 10 with great ease.—9th: Removed the No. 10, and passed a No. 12 quite easily.—11th: Removed the No. 12 catheter. I now passed in succession three conical metallic sounds, Nos. 14, 15, and 17, English size; these all passed quite readily, and with neither of them was the slightest obstruction felt at the seat of stricture; No. 17 was, however, a tight fit at the meatus. The patient was now left, for the first time since the operation, without a catheter, and was permitted to get up the following day; the metallic sounds being again passed; these were also used for the next few days. He was then provided with Nos. 23 and 25 French gum-silk bougies, which he was instructed to pass daily for a time, then on alternate days, and gradually to increase the interval to two or three days; he was also strongly warned of the evil of the intemperate habits to which he had been previously addicted. I should mention that the progress of the case was not attended with any constitutional disturbance, the temperature never having risen above 99° F.

Subsequent history.—The patient came to me a few times during the few weeks following the operation to report favourable progress, but was not again seen by me since the end of last December until the eve of writing this paper—viz., March 23rd, 1886,—when he came at my request, so that I might ascertain his condition. He then informed me that he had continued to pass the instrument at intervals varying from two to four days, that he had not experienced the slightest difficulty in micturition, although he had on several occasions taken very freely of stimulants. I passed a No. 23 French bougie without difficulty, though it was slightly grasped during withdrawal. I also passed a No. 20 metallic bulbous exploring instrument, with which I was able to detect the previous sites of both the strictures. I made no further examination.

Observations.—I have described the foregoing case, not with the object of advocating the operation of internal urethrotomy in cases of *traumatic* stricture, but rather as an illustration of the amount of good that may be derived

from it, and also because it has been so rarely undertaken in such cases. Although I am pretty extensively acquainted with the literature of urethral surgery, I can only at this moment recall a single recorded instance where internal urethrotomy has been performed for traumatic stricture. This case was one related by Mr. Teevan and reported in the Proceedings of the Clinical Society of London, in which both an old-standing traumatic stricture and several penile fistulæ were cured by the operation. In the case I have related, had I the option of choosing, I should have preferred performing either Syme's operation or a *combination of internal and external urethrotomy*, such as advocated for some cases of stricture by Dr. Otis, and also by Mr. Reginald Harrison. It may be asked why I did not at once after the operation succeed in introducing a large instrument. To this I can only answer by offering the explanation which presented itself to my mind at the time—viz., that although I had divided the stricture, the cicatricial ring still remained in such an unexpanded condition that it would not admit the end of a large instrument, just as would occur with a metallic ring when cut at one place. Having formed this opinion, I determined to carry on the process of *continuous dilatation*, and insert between the divided ends what has been aptly termed by Gouley "a cicatricial splice," as a jeweller would enlarge a finger-ring by the introduction of a new piece of metal, the object in both cases being to permanently enlarge the diameter of the circle. In conclusion, I may point out that the patient's habits, inclinations, and dislike to remaining in bed were serious obstacles to the course of treatment; and, on the whole, it is rather surprising that such a successful result has been attained.

P.S.—At the time of correcting the proof of this paper—viz., June 29th, 1886—I find upon inquiry that the patient continues in the same satisfactory condition as when last examined by me.

OBSERVATIONS WITH REFERENCE TO THE THEORY OF THE RESPIRATORY MURMUR,

AND THE SEAT OF ORIGIN OF THE SO-CALLED VESICULAR MURMUR, IN A CASE IN WHICH THE LARYNX WAS EXTIRPATED BY DR. NEWMAN.[1]

BY JOSEPH COATS, M.D.

BY the kindness of Dr. Newman I have had the opportunity of making some observations on a patient of his, chiefly in regard to the origin and propagation of the laryngeal and pulmonary auscultatory phenomena. In the first place it may be well to state the points which these observations were intended to bear on.

A very excellent summary of the principal facts bearing on the causation and mode of production of cardiac and respiratory murmurs is given by Hilton Fagge, first in an article in the *Medico-Chirurgical Review* for July, 1873, and again in his book on "Practice of Medicine," recently published. It is now generally believed that the various cardiac and vascular murmurs are produced by what is technically called a *veine fluide*. When a jet of fluid, whether liquid or gas, issues from a narrow space into a wide one, a blowing sound is produced, the form which the fluid takes under such circumstances constituting the *veine fluide*. So far as the larynx and trachea are concerned, the conditions for a blowing sound are fulfilled at the glottis, where, both in inspiration and expiration, the air issues from a narrow aperture into a wider space. We have accordingly at the glottis a loud blowing sound both with inspiration and expiration. In regard to the more remote parts of the respiratory tract, there is only one place where the due conditions are present, according to the theory, for the production of a *veine fluide*, and that is where each minute bronchiole opens into the somewhat wider infundibulum or group of air vesicles. During inspiration the air passes here from a narrower tube into a somewhat wider space, but during expiration it does not do so. The obvious conclusion that the normal respiratory murmur, which is essentially a sound of inspiration, has origin in a *veine fluide* occurring in the multitudinous infundibula, has not remained unchallenged. It has even been asserted that the sound does not originate in the lung at all, but is propagated from the larynx. This view seems to have been first asserted by M. Beau, and since his day the controversy has ranged around that point, with a general result unfavourable to his views. It seems to be a law of the *veine fluide* that the sound produced is most easily propagated in the direction in which the fluid is moving. According to this law, the expiratory glottic sound should not be audible over the trachea, whereas, as a matter of fact, it is usually louder than the inspiratory. Bergeon explains this on the ground that the false cords and the base of the epiglottis form a kind of lip or rim, under which circumstances, as experiment has shown, the sound may be projected backwards against the current, just as a regurgitant aortic murmur is propagated against the current, and is audible over the aorta. It will appear from our observations that this explanation hardly holds.

Turning now to these observations, I may describe briefly the local conditions. The larynx had been removed, and in its place there was a tube formed of vulcanite. This tube is about half an inch in diameter, being nearly that of the trachea, and it forms, in fact, a direct continuation upwards of the trachea, its lower orifice being embedded in the mucous membrane, so that there is no sudden alteration of calibre. The tube fixed in the upper end of the trachea is bent forward and emerges from the wound in the neck with an open mouth, retaining its full diameter throughout. By this means the trachea is continued outwards without the interposition of the larynx or the parts above it, and continued virtually in its full calibre. From the upper side of this tube a shorter and narrower one proceeds into the pharynx, and the patient can breathe through this tube when the large outer one is closed. This smaller tube I shall call the pharyngeal tube, the larger being the tracheal. By slight alterations in this apparatus I was able to obtain three different conditions, and to study the changes in the auscultatory phenomena produced thereby. These were—(1) The tracheal tube wide open with the pharyngeal tube open or closed, so that breathing was carried on essentially by the wide tracheal tube; (2) the tracheal tube closed and the pharyngeal one open, so that breathing was carried on through the narrow pharyngeal tube; (3) the tracheal tube partially closed by a stopper, through which was passed a much narrower tube, so that breathing was carried on through this narrower tube.

1. The tracheal tube open, and breathing carried on through it—a condition equivalent to the elimination of the larynx and buccal cavity. In Hilton Fagge's paper already alluded to experiments are referred to by Bergeon and Boudet in which the trachea of a horse was cut across and drawn forward out of the body, so as to eliminate the larynx, as in our observations. They assert that as a result the glottic murmurs disappeared entirely, this being quite consistent with the view that they originate in *veines fluides* at the glottis. My observation scarcely agrees with this, however. A loud expiratory blowing sound was produced at the external orifice of the tube, so loud as to be audible at some distance from the patient. There was here obviously the precise condition for the development of the *veine fluide*—namely, a tube opening into a wide space, the sound being similar to that produced when we form with the lips a round aperture and blow through it, and having obviously a similar mode of origin. This loud expiratory sound was propagated down the trachea and apparently to the larger bronchi. Auscultation in the supra-sternal notch and directly over the trachea revealed a loud blowing expiratory sound and a very feeble inspiratory one. The results of auscultation over the root of the lung behind were very interesting. It was found that the difference in intensity between the expiratory and inspiratory sounds had become much less, so that the conditions resembled those of ordinary bronchial breathing, the expiratory being as loud or almost as loud as the inspiratory sound. There was, however, a marked difference in quality in the two sounds, the expiratory retaining the blowing tubular character, while the inspiratory partook rather of the quality of the vesicular murmur. It may be inferred, I think, that the equalisation of the two sounds as regards intensity was largely due to the inspiratory becoming reinforced by the normal vesicular murmur, and

[1] This paper was read at the Pathological and Clinical Society on May 11th, 1886, and as the observations seemed to be of importance in relation to the origin of the respiratory murmurs, a committee was appointed to go over the points with me, and to report. The committee consisted of Professor Gairdner, Dr. Newman, Dr. J. Lindsay Steven, and myself, and the report is here added to the original paper.

this would already indicate that the vesicular murmur originates in the pulmonary parenchyma. This was confirmed by auscultation over other parts of the lung, particularly in places where the respiratory murmur is normally well heard and characteristic, such as the lateral region beneath the axilla. The sound had the usual characters of the vesicular murmur, the inspiratory phase being distinct and prolonged, while the expiratory was scarcely audible. It seemed obvious that the expiratory sound produced at the orifice of the tube, although conducted freely to the parts of the chest most nearly in contact with the root of the lungs, was damped by the pulmonary parenchyma, and therefore inaudible over the periphery of the lungs.

2. The tracheal tube plugged and the pharyngeal one open, so that breathing was carried on through the narrow pharyngeal tube. We have here almost the precise conditions of laryngeal breathing. The lower orifice of the pharyngeal tube opening into the wider tracheal tube affords the conditions for a *veine fluide* during inspiration, while the upper orifice of this tube opening into the pharynx gives the conditions for a similar sound during expiration. Auscultation of the trachea gave the usual characters of tracheal breathing—namely, loud expiratory and inspiratory murmurs, nearly equal in intensity and duration. At the root of the lungs behind there was the usual bronchial breathing, and over the rest of the lungs the regular vesicular murmur.

3. A narrower tube inserted into the orifice of the wide tracheal tube. Here we have again the conditions for a *veine fluide* at the internal orifice during inspiration, and at the external orifice during expiration. Auscultation over the trachea showed that the inspiratory sound was much louder than the expiratory, the sound originating at the inner orifice of the tube being better carried than that originating at its outer orifice. The sounds in this experiment were nearly the converse of those with the tracheal tube wide open, in which case, as already mentioned, the expiratory sound was much louder than the inspiratory. A very striking contrast was produced when during auscultation with open tube the latter was suddenly stopped by the plug bearing the smaller tube, the inspiratory sound in the one case closely resembling the expiratory sound in the other, both in quality and intensity. The results over the root of the lung and elsewhere were somewhat similar to those in No. 2.

Looking to these observations as a whole, we seem to be led to the following conclusions. First, the sounds produced at the glottis or larynx are freely conducted by the dense tissues comprising the trachea and bronchi, and are thus audible wherever these hard structures are in such a position as to carry the sound to the surface. In this way they may be communicated in the opposite direction to the current of air, so that the expiratory sound is audible down the trachea and at the back, where the root of the lung is nearest to the surface. It may be inferred that bronchial breathing generally is due to conduction by more or less solid tissue. Second, the vesicular murmur takes origin in the extreme distal part of the respiratory apparatus. In all the forms of the experiment the characters of the respiratory murmur proper remained unchanged, and even when at the root of the lungs there was a loud expiratory sound, this was not communicated over the general surface of the lungs. It does not lie within the scope of our subject to consider the exact mode of origin of the vesicular murmur, whether by the *veine fluide* in the multitudinous infundibula or by some other method, but the seat of origin seems sufficiently indicated by these observations.

I made also some observations as to the propagation of the voice produced in the artificial larynx, but without any result worthy of note. I would only remark that when the patient breathed with the voice-reed in position without vocalisation the respiratory murmur was exceedingly feeble or absent, evidently because little air could obtain passage by the sides of the reed. Indeed, so little passes that he can only wear the reed about ten or fifteen minutes continuously.

Report by a Committee of the Glasgow Pathological and Clinical Society.

"The committee having considered and carefully gone over the whole of the facts set forth in Dr. Coats' report, agree to adopt it as their report. In particular, the committee are quite satisfied as to the bearing of these facts on what is by far the most important question involved—viz., the origin of the so-called vesicular murmur, and that it must be considered to be perfectly well established that the presence or absence of a glottis or of any corresponding arrangement causing a *veine fluide* at the anatomical site of the larynx has no influence whatever in the production of the normal vesicular murmur.

"W. T. GAIRDNER, JOHN LINDSAY STEVEN,
DAVID NEWMAN, JOSEPH COATS.

"May 26th, 1886."

ON A CASE OF IMPERFORATE ANUS.

BY SIR WILLIAM MAC CORMAC.

THE particulars of this case may be worthy of record, as illustrating a practice somewhat different from that usually adopted.

On March 21st, 1886, I was requested by Dr. Duncan, of Henrietta-street, to see a child born two days previously. The anus was well formed, but almost immediately terminated in a pouch about half an inch beneath the surface. On careful and repeated examination, no trace of impulse or proximity of the bowel could be made out. We decided, therefore, that it was preferable to perform colotomy in the left groin, rather than undertake what promised to be a hopeless search for the bowel in the natural situation. A small incision was made in the usual place, and after the structures had been divided in succession, the intestine at once presented in the wound; it was sutured to the skin, and afterwards opened. Meconium escaped, and the abdominal distension, which before was very considerable, shortly subsided. The operation created no disturbance; the child took its food eagerly, slept well, and there was no sickness. The intention was at a later period to pass a probe or blunt instrument from the opening in the sigmoid flexure downwards towards the anus, and in this way ascertain the condition of the rectum, to what extent it might be deficient, and how far distant it terminated from the external cul-de-sac. On April 12th this was accordingly done, and, contrary to expectation, only a quite thin septum was found to exist between the rectum and the anus. It was divided with great ease upon the rounded extremity of a director, which was caused to project, and a free opening established, a well-perforated drainage-tube being subsequently passed from one opening to the other to facilitate the bowel being washed out, and to prevent the opening into the groin closing, which it showed a disposition to do. The child made an equally good recovery from this operation, and continued perfectly well for some days; then symptoms of acute peritonitis suddenly set in, and it died on April 17th.

On examination after death, there was a considerable amount of lymph and fluid in the abdominal cavity. The upper portion of the sigmoid flexure had been opened, and was firmly attached to the abdominal wall. The rectum was found full of a semi-solid mass of fæcal matter, evidently of some duration, and this condition no doubt accounted for the total absence of impulse in the region of the anus. The rectum was found to be complete, with the exception of the septum already spoken of; and there was nothing found in the region of either operation to account for the fatal result. After removing and slitting open the intestine, a small perforation was found in it about mid-way between the opening in the groin and the anus, and resting against this a small scybalous mass of fæces. It was as the result of the ulceration and perforation of the bowel at this point that peritonitis took place.

In those cases which are frequently met with where the bowel terminates at an unknown distance from the anus, the performance of Littré's operation gives the child immediate relief, and is attended by comparatively little danger; time is gained for considering what the next step should be at a time when the child is older and better fitted to bear a further operation; and from the opening in the groin the condition of the extremity of the bowel can be ascertained with tolerable accuracy. When practicable, the natural channel can be re-established, with the great advantage of having an exact guide to the position of the extremity of the gut, an advantage which all will appreciate who have ever had to make the difficult and often fruitless search for the blind extremity of the bowel in cases of imperforate anus.

Harley-street, W.

CASE OF POISONING BY CHLOROFORM.

BY J. G. U. WEST, L.R.C.P. LOND., M.R.C.S.,
HON. MEDICAL OFFICER TO THE NORTH STAFFORDSHIRE INFIRMARY.

ON April 6th, at 7 P.M., I was hurriedly summoned to a man aged fifty, a cab-driver, who had been found in his bedroom in an unconscious state. His wife had recently drowned herself, and at the inquest the jury had severely censured him for alleged ill-treatment of her. I found him lying on a bed in a state of deep coma; pupils slightly contracted, and not acting to light; breathing stertorous; complete muscular relaxation; conjunctivæ insensible to touch; pulse 96, regular, but very small. On smelling his breath I detected a very strong odour of chloroform. There was no empty bottle in the room. I at once used the stomach-pump, obtaining four ounces of dark-brown fluid, which did not smell of chloroform. Up to this time I could get no history, but I now discovered that three hours before I saw him he came home from the direction of his stable, and went straight upstairs. I sent a policeman to the stable, where he found an empty bottle, labelled chloroform. The coma deepening, the breathing becoming shallower and more stertorous, and the pulse weaker and more frequent, I thought an antidote was essential, but I could find no allusion to poisoning by chloroform in any book in my possession. Assuming that the great danger was from failure of the heart's action, I thought that atropine would most probably prevent the cardio-inhibitory effect of the chloroform. As he was quite unable to swallow, I injected three quarters of a grain of sulphate of atropia under the skin of the arm at 9 P.M. In twenty minutes the pupils began to dilate, and he moved his arms. The pulse improved, and the breathing lost its stertor. About midnight the conjunctivæ were sensible to the touch, and at 3 A.M. on the following morning he became conscious, and spoke. From this time he continued to improve, though for a few days he suffered from gastro-intestinal catarrh. He confessed that he bought two ounces of chloroform, saying that he wanted it to clean some clothes, that he drank it at the stable without diluting it, and then walked home, a distance of about 250 yards.

Whilst anxious to avoid the *post hoc propter hoc* fallacy, I think the case worthy of record as showing the probability of atropine and chloroform being antagonistic, and the fact of the patient exhibiting no sign of belladonna-poisoning after the injection appears to strengthen this hypothesis.

Stoke-on-Trent.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. J. ASTLEY BLOXAM.)

THE following cases present points of interest. The first case is one in which the result of successful suturing of the patella for recent transverse fracture was noted a long time after the operation, and the result was very satisfactory. In the second, a large tumour resembling a new growth was successfully treated by iodide of potassium, the diagnosis that it was due to syphilis being thus confirmed. In the third the new growth is recorded as scirrhus, but as this is a very rare growth, adenoid or cylindrical epithelium being the usual form of cancer met with in the rectum, we must wait for the further evidence afforded by microscopical examination before agreeing with the diagnosis.

CASE 1. *Transverse Fracture of Patella from Muscular Violence.*—Henry E——, aged twenty-seven, a labourer was brought to the hospital on Jan. 24th, 1883, having fallen downstairs. He says he felt the patella break as he was falling, and did not strike it anywhere. The fragments were widely separated.

Feb. 1st: This afternoon Mr. Bloxam cut down on the joint and wired the two fragments together under antiseptic precautions.—2nd: The patient has passed a good night; there is no elevation of temperature.—9th: The patient appears to be getting on well, and has no pain.—24th: The dressing was removed to-day, and the wound has almost completely healed.—March 6th: The wound is now quite healed. Patient can flex the joint without difficulty. He was discharged on the 20th, with a caution to be careful for some time to come. There was perfect apposition of the fragments. The patient has been seen and examined during the last few days, and the apposition of the fragments is still perfect after an interval of more than three years. Flexion and extension of the knee-joint are quite perfect.

This is an example of the excellent results which have been obtained in a great number of cases by securing that close contact of the fragments which is necessary to osseous union, and which is rarely obtainable by any other method.

CASE 2. *Osseous Tumour of Tibia.*—Margaret H——, aged twenty-nine, housewife, was admitted on August 22nd on account of a hard, dense, pear-shaped swelling on the upper and anterior part of the tibia, situated just below the knee-joint. It was very painful, and in about a fortnight the pain had extended down the leg to the foot. The anterior border of the tibia is very rough in its whole course. There are one or two old scars, said to be the marks of blows or falls. The tumour measures 3⅞ inches in length and 3¼ in width at the upper part. The circumference of the limb over the tubercle is 11¾ inches, as against 11 inches round the other leg; and one inch and a half below it measures 12 inches. The patient says that three years ago she noticed a small hard painful swelling on the left leg, just below the knee. She did not at first pay much attention to it, and ascribed it to the effect of a fall she had had a few days previously. It, however, rapidly increased in size and became more painful, until three months ago, when the pain became very great, the tumour taking on at the same time a further rapid growth. She was obliged to lay up for a few days, during which time the swelling subsided somewhat, and she then applied to the hospital for relief, and was admitted. Her father died of "paralysis of the brain" and her mother of dropsy. One of her brothers died of blood-poisoning. She has four brothers and sisters alive and well. She had a miscarriage at fourteen years of age, and a child a year later, the latter being still living and healthy. She then had another miscarriage, and after that a child, which died when three months old. She has had one child since, still living. The patient says she has never had any illness, nor has her husband. She was ordered a mixture containing ten grains of iodide of potassium three times a day. The swelling to be painted daily with liniment of iodine.

Sept. 3rd: The patient still complains of pain in her leg. The dose of iodide of potassium was increased to fifteen grains. The swelling is a trifle smaller.—7th: The iodide of potassium was raised to twenty-five grain doses to-day. The patient is decidedly improving, but complains that the painting hurts her a good deal.—16th: The application of the iodine liniment is to be discontinued. The tumour is now markedly diminished in size, and the pain is nothing like so severe.—24th: The patient left the hospital at her own urgent request, although she acknowledged that she was rapidly improving.

This case offered an example of the efficacy of large doses of the iodide where smaller doses had failed to afford relief. There is no reason to doubt that had the patient continued under treatment absorption might have been brought about and the tumour dispersed.

CASE 3. *Scirrhous Cancer of the Rectum; Colotomy; Recovery.*—Joseph D——, aged fifty-three, a publican, applied for relief on account of passing blood with unformed motions, together with an aching and heaviness in the rectum after defecation, which, moreover, does not relieve the desire. He was admitted on Jan. 8th, and on examining the rectum healthy mucous membrane and a normal calibre were felt for about four inches; at that point some thickening and induration were present, chiefly of the posterior and left walls. On passing the finger beyond this, an abrupt edge can be felt, followed by an irregular excavation, which seems to become lost in the gut higher up. The

patient says that three months ago he first passed small clots of blood mixed with slime, unaccompanied by a motion proper; when he did succeed in passing a motion, he noticed that it was flat, tape-like, generally with a smear of blood down one side. For the last two months, however, the motions have been without form. He has lost flesh markedly for the last two months. He had inflammation of the lungs nine years ago, and kidney trouble six years since, which lasted a week. Six months ago he was troubled with rheumatic pains in the right shoulder, which have not left him. His father died at seventy-five years of age, and his mother at seventy-eight, having had twenty-three children. No history of carcinoma anywhere. On the 24th Mr. Bloxam performed colotomy by means of an incision four inches long, the centre of which corresponded to the centre of a line drawn vertically from the crest of the ilium to the last rib, half an inch behind the middle point of a line connecting the anterior, superior, and posterior spines of the ilium. The direction of the incision was obliquely transverse. A search with the fingers in the abdominal fat readily brought the colon to the orifice of the wound, and it was then secured and opened in the usual manner. Drainage-tubes were inserted above and below, and the ends of the wound sewn up and dressed with a simple pad of antiseptic tow and a bandage. The operation was followed by a good deal of collapse. A considerable amount of fæces escaped during the night.—29th: The temperature has been at 100° yesterday and to-day, and the patient looks weak and exhausted.—Feb. 4th: The patient looks much better to-day, but his temperature is still about 100°. The wound has a healthy appearance, but the mucous membrane shows a tendency to protrude.—20th: He has no pain at present, and sleeps well. Appetite improving. The patient was discharged on the 25th, very much better in health and comfort.

SUSSEX COUNTY HOSPITAL.

CASE OF RECOVERY AFTER SWALLOWING A FLUID OUNCE AND A HALF OF COMMERCIAL HYDROCHLORIC ACID.

(Under the care of Dr. H. Ross.)

For the following notes we are indebted to Dr. Robert Black, house-surgeon.

George B——, a man, aged thirty-nine, was brought to the hospital reported to have swallowed a dose of hydrochloric acid. It appeared that he had lately become melancholic, and had attempted suicide by laudanum four days previously, but was fortunately discovered and the poison taken from him. On the day of admission he purchased an ounce and a half of "spirits of salt," which he sent for in a small gallipot; he then filled an ounce and a half bottle with the acid and drank the whole of it. He was seen about ten minutes afterwards by Dr. Harris Ross, who at once administered some calcined magnesia and recommended his removal to the hospital.

On admission he was very pale and much collapsed. There was much retching, and he vomited a quantity of dark, blood-stained fluid with a peculiar almost aromatic smell. There was a well-marked red line at the back of the hard palate, where the acid had first come in contact with it. He complained of no pain and no tenderness at the epigastrium. He was ordered some carbonate of potash and borax with Battley's solution of opium, but continued to vomit dark blood-stained fluid with small shreds of membrane.

May 4th.—The man has been quite free from pain and can swallow well, but is still sick from time to time. The bowels have acted without aperient, and the motions contain a little blood. A white membrane has formed on the dorsum of the tongue, and is slowly peeling off. He has now a good healthy colour in his cheeks, and presents a tranquil, comfortable appearance, and sleeps well all night. The temperature has been 99·5° until to-day, and is now normal.

10th.—The patient has been up for two days, and appears perfectly well. There is no pain, no difficulty in deglutition, and the evacuations contain no blood. There has never been any marked constipation.

On the 12th he left the hospital quite well. Dr. Ross ascertained from the chemist that the acid supplied was of the ordinary strength of the commercial crude hydrochloric acid; and it was conclusively proved that the full amount above mentioned was taken.

CARDIFF INFIRMARY.

A CASE OF CYSTIC GOITRE TREATED BY "SHELLING OUT."

(Under the care of Dr. C. T. VACHELL.)

WE are indebted for the following notes to Mr. William Duff.

Annie Z——, aged twenty-three, married, was admitted on July 23rd, 1885, suffering from a tumour on the right side of the neck. She had enjoyed good health until five years ago, shortly after marriage, when a swelling commenced to form over the right side of the thyroid gland, and continued slowly and persistently to enlarge. She had one child a year and a half ago, but neither pregnancy nor lactation seemed to influence the growth. On admission a tumour about the size of a cocoa-nut occupied the position of the right lobe of the thyroid gland, and passed somewhat over to the left of the middle line of the neck. The skin, with a few enlarged subcutaneous veins, was freely movable over the swelling, which moved with the trachea in the act of swallowing. Fluctuation could be felt all over it, more distinct in some parts than others. Neither breathing nor swallowing was seriously interfered with. About three weeks before admission a teacupful of bloody serous fluid was withdrawn by a trocar and cannula, and the tumour was considerably reduced in size, but reaccumulation took place in a day or two. By August 11th the tumour had attained a larger size than ever, the circumference of the neck being 17¼ in. The patient was informed that if the tumour remained serious results might ensue, and she consented to an operation.

Ether having been administered, Dr. Vachell proceeded, on Aug. 12th, to remove the tumour under the carbolic spray. A vertical incision measuring about 2½ in. long was made through the skin over the most prominent part, and at once the surface of the tumour came into view, the capsule of the gland, if present, having been so thinned by pressure as to present no difficulty. Up to this point very little hæmorrhage had occurred. Without much difficulty the tumour was now shelled out, but the hæmorrhage which commenced with this process, and continued throughout, was very profuse. Firm pressure was maintained by an assistant, the surface was mopped with very hot water mixed with tincture of iodine (1 in 20), and as bit by bit the surface was exposed all the bleeding points were ligatured. The edges were then brought together, and a drainage-tube inserted.

After the operation the progress was satisfactory. Some sickness in the afternoon and a troublesome cough led to considerable oozing, necessitating the dressing of the wound in the evening. The dressing was repeated the next day. On the 14th the tube was shortened, and on the 16th the stitches were removed. On the 19th boric dressing was substituted, and on the 24th the patient left the infirmary.

The temperature rose on the evening of the day of the operation to 103·8°, and remained more or less febrile till the 19th. Probably this was due to an attack of bronchitis, from which she then suffered.

The tumour, which was irregularly ovoid in shape, measured 13 in. by 9 in., and weighed 20 oz. On being cut into, 9 oz. of dark sanguineous fluid escaped, similar to what had been removed by tapping, but darker. The walls varied from one-sixth of an inch to rather over half an inch in thickness, and consisted of material resembling heart muscular fibre in naked-eye appearance. The internal surface was much and deeply corrugated.

A MUNIFICENT RUSSIAN NOBLEMAN.—Count Orloff Davidoff appears to be a most munificent benefactor to the sick poor of Russia. He recently gave £24,000 for the purpose of endowing a children's hospital dedicated to St. Olgar, in Moscow, which he had built at his own expense, besides buying a house for the purposes of the administration of the hospital, costing £4000. This noble foundation he has now further enriched with a gift of another £24,000. Dr. Chernoff, privat docent for children's diseases in the St. Petersburg Military Medical Academy, has been appointed medical officer to the new institution, which is considered by the Russian medical press as an excellent choice. How much more satisfactory will it be to the munificent donor to be able to watch the success of his hospital than merely to leave part of his money in his will to be devoted to charity after his death.

Medical Societies.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

A MEETING of the above Society was held on May 6th, Dr. J. H. Ross, Vice-President, in the chair.

Destruction of Parotid.—Mr. N. P. BLAKER brought forward a woman of over middle age, in whom both parotid and both submaxillary glands had sloughed away after acute inflammation that resembled ordinary "mumps"; there was some dryness of mouth, but no marked inconvenience.

Myelitis, or Reflex Paraplegia (?).—Dr. BLACK showed for Dr. Withers Moore, a man of fifty-three, admitted into the County Hospital with partial loss of motor power in the legs, and of control over the bladder and rectum; most of the reflexes were exaggerated, the gait was stiff and spastic, but there was no marked wasting, and no rigidity; the urine was alkaline, and free from albumen; there was much vesical pain; there was no stricture, but chronic dysuria, and retention, requiring the catheter, had occurred seven weeks before; about the same time he rather suddenly lost power in the legs. On the other hand, in favour of the syphilitic origin of the symptoms (from a disseminated myelitis) was the history of chancre and secondary symptoms two years previously. He was ordered one grain of mercury with chalk three times a day, and from five to ten grains of iodide of potassium; the bladder to be washed out daily with boracic acid solution; and under this treatment all the symptoms had improved in a few weeks.

Congenital Dislocation of both Thighs.—Dr. BLACK also showed for Dr. Withers Moore a boy of ten years with this deformity. He was born by the breech after protracted labour, and never walked properly. His pelvis seemed broad and of female type; the thighs approximated and were shorter than the legs below the knee; the trochanters were near the anterior superior spines of the ilium and two inches above Nélaton's line; the gait was waddling, and there was much lordosis. Sayre's jacket had been applied four years before at another hospital without benefit.

Lichen Ruber Planus.—Dr. MACKEY brought forward a characteristic case of this kind in an adult male, with red flat papules, some umbilicated, confluent over face, body, part of thighs, and outer aspect of arms, discrete in other places, especially on wrists and hands; most, if not all, were on the site of the hair follicles, and some resembled lichen pilaris, whilst sufficient scaling appeared near the large joints to justify Mr. Hutchinson's term of lichen psoriasis, and to some papules the term lichen pilaris would apply. The attack was acute and of a few weeks' duration, and accompanied with much pruritus and nerve depression, but was now getting better with rest, alkaline baths, and carbolised oil, and internally arsenic.

Suppurative Peritonitis.—Mr. WILLOUGHBY FURNER showed the pelvic organs removed post mortem from a case of suppurative peritonitis; there was a small cyst in one ovary, the other had been removed eighteen months before for cystic disease, the stump having been tied with thick silk, no trace of which was found.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AN ordinary meeting was held on May 7th, Dr. Clifford Allbutt in the chair.

Pasteur's Inoculations.—DR. BARRS reopened the adjourned discussion on Dr. C. Chadwick's paper on Pasteur's treatment for rabies. He pointed out that corroboration was needed on certain points, especially as to the real state of the dogs who had bitten the patients.—Dr. DOLAN said that, while fully appreciating Pasteur's work, he was not prepared to accept his method as proved until control experiments had been performed by a commission. There was evidence to show that in certain cases the dogs which inflicted the bites on the patients treated were not rabid, and further evidence was required. What place was to be assigned to cauterisation in these cases? Were there any statistics to show that such a number had been previously treated without hydrophobia subsequently developing? He gave some statistics on these points. He dwelt on the difficulties of the statistical side of the question. The explanation of the deaths was not scientific. It was said that they came too late. If the Russians who died came too late, then all the Russians came too late. We could not accept a theory which worked two ways—one way for failures, another for recoveries. M. Pasteur limited the time to fifteen days. What was the use of taking over cases where the bites had been inflicted before that time. The microbe theory was the basis of treatment; but here, again, a difficulty arose—how to reconcile this theory with the quantity theory. The rabbits were treated in one way, men in another. On man the injections produced not even an abscess or phlegmon, and were to all appearance innocuous. Inject this virus into the brain of a man—we then have a different result no doubt. The state of the rabbits required confirmation.—Dr. HIME, who had recently returned from Paris, referred to the report of a Commission appointed by the French Government for the purpose, who found that of five ordinary dogs injected in the brain with virus all died of rabies, but of those presented by M. Pasteur as protected none died when treated similarly. The strength of the final injection of virus given to the persons treated was sufficient to cause rabies in a dog in half the ordinary time. With regard to the state of the large numbers of persons presenting themselves for treatment, he remarked that if one person who would have suffered was protected, the practice would be justified.—Dr. FARQUHAR, for personal reasons, had made much inquiry as to the incubation period of hydrophobia, and found that in some cases it amounted to five years.—Mr. MAYO said that of fifteen cases treated in the Leeds Infirmary during the past twelve years, the incubation period had varied from seventeen days to five months, the average being about seven weeks.—Dr. CHURTON said he had found caustic of great use in preventing injury from post-mortem wounds, if applied immediately.—Dr. JACOB thought that on general principles it was advisable that M. Pasteur's experiments should be repeated by an independent authority, and that at present there were great difficulties in the way of accepting the matter as proved. If of the 600 or more patients treated at Paris 100 had really been bitten by rabid dogs, we should expect about six to become affected, and if these escaped a great deal would be proved towards accepting the method.

Static Electricity as seen in M. Charcot's Clinique.—Mr. ROBERTS read a paper on this subject. He described the machine there used and the one he himself adopted, which was by Carré, worked by a hydraulic motor. The patient was insulated and charged, and sparks drawn by suitable conductors from the affected parts. He had found it useful in various rheumatic and neuralgic affections.

Mr. MAYO ROBSON showed a child, three months old, on whom he had operated for Lumbar Spina Bifida by excision of the sac three weeks previously. The child was in good health, with all its movements perfect.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Friday, May 7th, Mr. Joseph White, President, in the chair.

Dr. HANDFORD showed a fœtus (dissected), recently presented to the Society by Dr. Mutch, as an illustration of Maternal Impressions. Dr. Handford also brought forward the following pathological specimens:—1. Hydro-Salpynx, Granular Kidneys, and Hypertrophied Heart, from a woman aged fifty-five. 2. Tumour of the Base of the Bladder from a man aged forty-eight, who had suffered during life from Hæmaturia. 3. Aneurysm of the first part of the Aorta, from a man who had suffered during life from a pulsating tumour in the left third intercostal space. 4. Spleen, Abdominal Glands, and Thyroid Body of a patient who had died of Hodgkin's Disease. 5. Abscess of Liver (one large and numerous small ones), probably septic, following gonorrhœa and pelvic inflammation. 6. Secondary Abscesses of Brain in the above case.

Dr. ELDER showed the parts removed by Hysterectomy, in a case of Uterine Fibroid and Hæmorrhage.

Poisoning by Syrup of Squills.—Dr. MUTCH read a paper on this subject. After a brief review of the chemical properties of squills, he proceeded to relate the symptoms produced in the four cases which had come under his observation:—Isaac B——, aged three and a half, suffered from pains in the legs, difficulty in breathing, and prostration. His face was pinched and pale, eyes sunken, lips, fingers, and nails livid,

respiration quick, and pulse irregular. He died on the same day as first visited by Dr. Mutch—i.e., Feb. 18th, 1886. The boy had suffered from whooping-cough, and had been taking a mixture composed of syrup of squills, syrup of violets, ipecacuanha wine, and oil of almonds, for about ten weeks. Ethel B——, aged five, had taken the same mixture for the same period as the foregoing, and some days subsequent to the death above mentioned complained of her legs giving way, of falling several times, and of vomiting. Her eyes were sunken, respiration and temperature normal, face pale and livid; her pulse was irregular and intermittent (one in every four beats); pupils normal. She died suddenly five days after the onset of these symptoms, on Feb. 26th. A post-mortem examination was made forty-eight hours after death, when the chief signs were found to be—fluidity of the blood, arrest of the heart's action in systole, and lividity. The two remaining cases, L. B.——, aged eight, and T. B.——, aged six and a half, presented the above symptoms in a lesser degree. Both these cases recovered. The mixture had been analysed by Dr. Trueman, who attributed the symptoms to an especially strong preparation of squills in the mixture which had been administered.

Poisoning by Sewer Air.—Dr. HAYDON WHITE read a paper on this subject, in the course of which he discussed its effects upon the human subject, instancing gastro-intestinal, nervous, anæmic, and other affections which may arise therefrom.

Gravel and Calculus.—In some notes on this subject Mr. ALFRED SCOTT related a case of severe persistent urethritis occurring in a man of twenty-five, simulating and taken for gonorrhœa, but really dependent on oxaluria rebellious to treatment, but ceasing after passage of an oxalate of lime calculus. In the course of his two years' affliction the man married, and the wife suffered from vaginitis, apparently corroborating for a time the diagnosis of specific disorder. Another case reported was that of a woman who passed small oxalic calculi at intervals of a few months, whatever diet or treatment was adopted. Almost her only relief was from chloroform, or from full doses (half a grain) of morphia during the paroxysm; Mr. Scott strongly advised copious draughts of water during this medication to obviate ill effects. He further noted how often gravel or calculus was formed in *one* kidney only. Too exclusive a diet did not answer, and he only refused such food as "turned acid"—e.g., beer, tea, cheese, pastry, and meat—when taken oftener than once daily.—Dr. UHTHOFF referred to nephritic and gouty cases benefited by copious draughts of hot water taken regularly two or three times a day.—Mr. EDWARDS considered diet made little or no difference. The urine of later life, containing uric acid, was often of low specific gravity from "kidney inability"—a condition benefited by strychnia.—Mr. WILLOUGHBY FURNER explained the low specific gravity of some gouty urines by the crystallising and sinking of solid constituents; he also found little effect from diet except from lessening meat, and emphasised the fact as to Hindoos being subject to calculus.—Dr. BLACK quoted cases of oxaluria in which nitrogenous, diabetic, and non-nitrogenous dieting had been successively tried without effecting any alteration in the excretion.—Dr. EWART said calculus was rare in Bengal, where rice was more consumed; but frequent in the N.W. provinces, where the heat was more intense and the skin drier: the chief food there was wheat-flour.—Dr. MACKEY considered that the drinking-water should be taken into account when judging of causation of calculus. It was noteworthy that at Bath the waters were taken at 115° F., though they did not seem so hot to the taste.—Dr. WHITTLE referred to the hepatic and neurotic origin of rheumatic and gouty disorder.

THE COVENTRY PROVIDENT DISPENSARY.—This is one of the sound and old-fashioned Provident Dispensaries which prospers, and seems to deserve to prosper. It has 16,000 members, of whom no less than 1198 joined during last year. The mortality of the members was 14·6 per 1000, while that of Coventry was 16·2 per 1000. The four medical men received respectively £324, £333 6*s.* 6*d.*, £360 18*s.* 9*d.*, £332 5*s.* 3*d.* Members' payments amounted to £1820 18*s.* 3*d.*; of midwifery cases, 287 were attended by midwives, and 76 by the surgeons, whose fees on this account brought up their respective receipts to £350 or over. When this is the case a rule of the dispensary requires the appointment of another surgeon. Accordingly one was appointed—Mr. Littlewood.

Notices of Books.

Regional Surgery, including Surgical Diagnosis: A Manual for the use of Students. Part III., the Abdomen and Lower Extremity. By F. A. SOUTHAM, M.A., M.B. Oxon, F.R.C.S., Assistant-Surgeon to the Manchester Royal Infirmary, Assistant-Lecturer on Surgery in the Owens College School of Medicine. London: J. and A. Churchill, 1886.—Having already noticed at some length the previous parts of Mr. Southam's work, it is only necessary to record the issue of this the final section of it. The character of the book is fully maintained in this part, the same method and style have been preserved throughout, and those who have found the earlier volumes helpful will welcome this concluding section. There is no reference to the special forms of treatment required in different regions, but brief descriptions of the affections of various parts are given, together with some tables of comparative symptoms of diseases liable to be mistaken one for the other. Mr. Southam has not attempted to make his work thoroughly exhaustive, but rather such as may be useful to the student. We do not find in this volume any mention of abscess in the sheath of the rectus abdominis muscle. And the little vascular growth met with at the umbilicus of infants is described as composed of granulation tissue. We have noticed a few other points that might be made the subject of criticism, but, as we have said, that might seem out of place in a notice of a book which is evidently not intended to be a full, but only a brief outline of Regional Surgery.

Select Extra-tropical Plants. By Baron FERD. VON MUELLER. Melbourne: J. Ferris, 1885. New Victorian Edition, revised and enlarged. 8vo, pp. 466.—This work first appeared in the form of separate contributions to the volumes of the Victorian Acclimatisation Society, with the view of promoting the introduction and distribution of useful plants. As these papers met an actual want, there soon arose a demand for copies, which led to a rearrangement and enlargement of them, and to a subsequent publication of the work in a separate form in Victoria, and afterwards in India, New South Wales, in Germany, and in the United States. The present edition is the second that has been published in Victoria. There is therefore sufficient evidence that the work is considered a most useful one by those for whom it is intended. The greater portion of the volume consists of an alphabetical list of plants eligible for industrial culture in extra-tropical countries. Under each plant is given its botanical and vernacular names, its height and character, whether tree, shrub, or herb, the climate and temperature most suitable for its cultivation, the elevation at which it grows naturally, the economic and medicinal uses of its products, and in many cases its commercial value. The last fifty pages are devoted to most useful and complete tables and indexes. One of these classifies the plants under various heads—e.g., plants yielding cork, dyes, and fodder; fibrous, insecticidal, medicinal, oil-yielding plants, and tanning and seacoast plants, &c. Another, which must be invaluable to planters who have not access to botanical works, gives the botanical synonyms commonly used; and yet another classifies the plants in groups according to the return they are likely to make to the cultivator—i.e., whether the crop will be obtainable the first, second, or third year, or only after several years. These are details which are useful to farming emigrants and intending planters. A dip into the contents of this volume will show that Baron Mueller must keep a systematic record of current literature, since his book affords the latest information concerning the uses and properties of plants. Thus the anæsthetic action of cocaine, and the uses of jaborandi and pilocarpine are mentioned. Although chiefly

intended for those engaged in agriculture, horticulture, forestry, and acclimatisation generally, the work will probably afford the medical practitioner who may have leisure to glance through its pages some useful suggestions. As a dictionary of economic and medicinal plants it will be widely useful. One can only feel surprise that such a work should not have issued from Kew rather than from the colonies, seeing that the former is, or should be, the centre of botanical information. Australia may be congratulated on the possession of a botanist who not only has thoroughly at heart the interests of the colony in which he resides, but who is anxious to benefit the whole world by the distribution of botanical knowledge of sound practical value.

The Sale of Food and Drugs Acts, 1875 and 1879, with Notes and Cases, also Practical Observations bearing upon Legal and Chemical Questions which have arisen in the Working of the Acts. By WILLIAM JAMES BELL, Esq., B.A., LL.M., of the Inner Temple, Barrister-at-Law, and Fellow of the Chemical Society. London: Shaw and Sons. 1886.—The Anti-Adulteration Acts, with all their imperfections, have been, on the whole, very successful. The annual returns show a great improvement, and in some articles almost a cessation in regard to adulteration. But much fraud which might easily be stopped still exists, and local authorities, even when they are energetic, which unfortunately is not always the case, are still thwarted by unnecessary difficulties in their attempts to suppress the evil. Among these difficulties the interpretation of the law is foremost. It is not surprising that Acts framed after keen contention, and embodying the compromises which generally come of such contentions, are in some places obscure, or, at any rate, indefinite. No book which has hitherto appeared has afforded nearly as much help for the judicious application of the Acts as the little volume before us, which we may say at once is absolutely essential to all who are concerned in the matter. Mr. Bell has given the Acts as they stand, and against the clauses has appended notes describing cases in which they have received legal illustration, with the grounds on which the decisions have been given. Unfortunately, these decisions have not been very uniform, and many of them are merely those of magistrates, and do not carry great weight. Even the precedents created by the higher courts do not always accord with scientific sense, and perhaps the best that can be said for the present legal position is that it seems to afford a sufficient basis for a new Act. When Parliament, or if Parliament—we hardly know which conjunction to employ—finds time to attend to domestic business, such an Act will, no doubt, be passed. Meantime, Mr. Bell's book will prevent the trouble and expense of many hopeless prosecutions, and will assist many proper ones; and it has an additional value in the evidence that it supplies of the unsatisfactory state of the present law.

Report on Water-supply and Sewage-disposal. By W. F. TAYLOR, M.D. Brisbane: James C. Beal.—This report is the result of an inquiry made by Dr. Taylor into matters relating to water-supply, disposal of sewage and house refuse, and house sanitation. The inquiry was conducted on behalf of the Government of Queensland, who had under consideration a Bill for making better provision for securing and maintaining the public health, and Dr. Taylor, who was about to proceed to England, was requested to undertake this duty. The writer has certainly made excellent use of the seven months which he devoted to studying these questions, and his report shows that he has made himself well acquainted with all the important facts concerning each. A condensed, but sufficient, account is given of the different methods of conservancy, and the chief points in house sanitation are touched upon. Dr. Taylor has not discussed the applicability of one method or another specially to Brisbane or other Queensland towns; we presume this is beyond the limit of his instructions; but his visit to England will be useful in enabling the Queensland Government to frame a general law on sound principles.

Solutions of the Questions on Electricity and Magnetism set at the Intermediate Science and Preliminary Scientific Pass Examinations of the University of London, from 1860 to 1884. By F. W. LEVANDER, F.R.A.S., Assistant Master at University College School, London. Second Edition. London: Lewis. 1885.—A cram-book, but a good one of the kind. Such books cannot, we suppose, be dispensed with while examinations are what they are.

Year-book of the Scientific and Learned Societies of Great Britain and Ireland. London: C. Griffin and Co.—The first issue of the Year-book of the Societies (for 1884) contained a concise review of the history, organisation, and conditions of membership of the various societies, compiled from official sources. The present issue (the third) gives a chronicle of the scientific work done during the past year, and aims at affording an account of such work carried out in the various departments during the past year, a record of progress, and a convenient handbook of reference. It is a thoroughly useful compilation.

Analytical Records.

BYNIN (LIQUID MALT).
(ALLEN & HANDBURY, LONDON.)

THIS is a highly diastatic malt extract, slightly alcoholic and of very agreeable taste. We find that at a temperature of 100° F. one part of the liquid acting for three hours will convert sixteen parts of starch into malt sugar and dextrin so completely that no blue colour is produced with iodine, so that one ounce will digest perfectly one pound of starch. This is a most satisfactory result, and, coupled with the fluidity and pleasant flavour, renders this preparation a most valuable one.

KINDER-MILCH (INFANTS MILK).
(LOEFLUND & CO., FENCHURCH-STREET.)

This is described as condensed milk with malted wheat extract, but without cane sugar. The analysis of Professor Soxhlet of Munich represents it as consisting entirely of maltose, lactose, dextrin, albumenoids, milk, fat, ash, and about 20 per cent. of water. Our own partial analysis is in agreement with this, but in the sample we examined there was a certain quantity of soluble starch. No granules were, however, visible under the microscope, so that for practical purposes the conversion is complete. The preparation is of uniform buttery consistency, and fat globules separate easily on addition of water, as they do from milk. We have, therefore, nothing but praise to bestow. The "Kinder-milch" is certainly most nutritious and easy to digest, and is an excellent substitute for mother's milk.

PRESERVED MILK, FROM THE BAVARIAN MOUNTAINS.
(LOEFLUND & CO., FENCHURCH-STREET.)

A pure concentrated milk, unsweetened and without antiseptic. Following the directions on the label, we added 2½ parts of water, and obtained a milk which could not be distinguished from the ordinary produce of the dairy, and which proved on analysis to be of good quality. The analysis agreed with that performed by Professor Soxhlet of Munich, except that he found a slightly higher percentage of butter fat. Such slight variations must, however, occur from time to time. It will be seen that our opinion of this article of food is highly favourable.

SOLUBLE ESSENCE OF JAMAICA GINGER, GUARANTEED FREE FROM CAPSICUMS.
(STEVENSON & HOWELL, SOUTHWARK-STREET.)

According to our analysis and examination this is a perfect ginger essence. We have searched most carefully for the active principle of capsicum, and have not found the slightest trace. No less than 98·8 per cent. of the essence is volatilised by heat, including of course the fragrant essential oil, and of the residue only one-half is soluble in ether, so that the fixed resin in the essences only amounts to 0·6 per cent. As might be expected from its composition, the flavour of this essence is more delicate than that of the finest root.

THE LANCET.

LONDON: SATURDAY, JULY 3, 1886.

THE Parliament which has just come to such a premature termination may be remembered by the medical profession as the Parliament which passed the Medical Act of 1886. The profession had wellnigh lost faith in the power of Parliament to pass any Bill dealing thoroughly with the questions involved in any adequate scheme of medical reform. This loss of faith is not repaired by the Bill which has just become an Act, and which we print *in extenso* to-day. Judged either by what it does, or by what it leaves undone, the Medical Act is a very imperfect measure. It does not give a One Portal in each division of the kingdom; it does not equalise the severity or the cost of what should be equivalent examinations in different divisions of the kingdom; it does not secure that examinations which purport to be something above the common examinations shall be what they purport to be; it does not deal with questions of unqualified practice, or with the powers and duties of the medical bodies or the Medical Council, in regard to cases of unprofessional conduct in registered medical men; it does not give the Medical Council more efficient powers than it possessed in 1858, or reduce its size by abolishing the principle of separate representation of medical authorities in the Council; on the contrary, it abolishes the principle of *grouping* or combined representation, which we have always recommended, and which was recommended by the Royal Commission, nearly all of whose recommendations have been disregarded. This is a grave list of things not done by the new Act, which we regret to have to frame, and which greatly moderates our satisfaction with it, the more so when we consider that Parliament has no relish for Medical Bills, and will think that it has now discharged its duty on this score for many years to come.

Let us come now to things done by the Bill, and see if we can rise to a feeling of approval, if not of gratitude. Briefly, the Bill secures the following objects.

I. It enacts that after a certain day no person shall be registered under the Medical Acts who has not passed a qualifying examination in Medicine, Surgery, and Midwifery. The Act recognises that all universities acting singly may grant such treble diplomas, but that corporations must act in combination for this purpose. With the view of securing standards that shall guarantee sufficient knowledge and skill in candidates for diplomas, it is made the duty (Clause III., page 2, Subsection 2) of the Medical Council to appoint a number of inspectors to attend all or any of the qualifying examinations. This scheme may prove one of the most important in the Bill. But everything will depend on the way in which it is worked, on the number and character of the inspectors, and the instructions given to them by the Council. The Medical Council may represent to the Privy Council that the standard of proficiency of any body is not maintained, and the Privy Council may, "*if they think fit*," withdraw from the body the right to hold qualifying examinations. Here we may say that the action of the Privy Council is often required in this Act. The frequency has been somewhat abated, in deference to our own representation, but its powers are still considerable.

II. The Act contains a very novel clause (V.), which enables the Medical Council to enter into co-operation with a corporation that has tried and failed to enter into combination with another corporation to grant qualifying diplomas. This clause is understood to contemplate and facilitate the resuscitation of the Apothecaries' Societies, or, perhaps, to put a gentle pressure on other corporations to admit them into a combination scheme.

III. The Act enlarges and modifies the constitution of the Medical Council, by giving a whole member to certain bodies that have hitherto not been represented in the Council, or only so jointly with another similar body, and by conceding for the first time direct representatives of the profession, five in number. This is the part of the measure for which the profession will feel most grateful to Sir LYON PLAYFAIR. True, the five direct members will be confronted by about twenty members sent to represent the "interests" of examining bodies or universities, to say nothing of five Crown members, who have generally been men prominently *official* in the universities or corporations. But we must be thankful for small mercies—for the five members,—thankful to Sir LYON PLAYFAIR for four, and to Dr. FOSTER for inducing him to concede another at the expense of the Crown representation. The President of the Council is to be the returning officer for the election of Direct Representatives; he is to issue his order to the Branch Council for their election not later than Nov. 15th, and they are to come into office on Jan. 1st, 1887. The direct representatives are to be chosen by registered medical practitioners in the several parts of the United Kingdom. They must themselves be registered medical practitioners. The regulations for the conduct of the election are to be made by the Privy Council. The candidates must be nominated by at least twelve registered medical practitioners. The election is to be conducted by voting papers to be issued by the Branch Council in each division. Clause IX. provides that on the occurrence of a vacancy in the chair, the President shall be chosen from the members of the Council. An important clause (X.) provides for the revision of the constitution of the Medical Council at any time by the Privy Council, on the suggestion of the Medical Council. A Body that is diminishing in importance may, under such a revision—brought about by a representation of the Medical Council to the Privy Council,—be deprived of its representative in the Council. On the other hand, a new Body, with the power of granting the treble qualification, may by the same process be admitted to representation.

Clause VI. has a rather pretentious title: "Privileges of Registered Persons." The clause, however adds nothing to the existing privileges of registered persons, and detracts in no degree from the existing and excessive liberty of unregistered persons. The Bill, in fact, deals incourageously with the question of illegal practice, and shows a tenderness to quacks, or a fear of their friends in Parliament, which is not magnanimous or for the public good.

The Second part of the Act has reference to the registration of colonial and foreign practitioners. It was right to take powers for the recognition and registration of such degrees; but we objected to a power reserved for the Privy Council to "order" the registration of such degrees by the Medical Council, after it had refused to recognise them. (Clause XIII., Subclause II.) It is strange, and not very creditable, that the Council took no objection to this provision, which might place it in a humbling and undignified position. We expressed ourselves strongly on the subject, and the clause has been somewhat softened in tone and process; but the power still remains. Holders of Foreign Degrees, who are also registered medical practitioners, will be able to cause a description of such degrees to be added to their name in the Medical Register, provided they satisfy the Medical Council that the degrees were obtained after examination and prior to the passing of the Act.

The Third part of the Act contains miscellaneous provisions. One of these has in view default of duty by the Medical Council, in maintaining standards of examination, in appointing inspectors of examinations, or in any other way; and enacts that the Privy Council may, of their own motion, take up the neglected duty of the Council. There are also sundry provisions for the registration of qualifications in midwifery, in sanitary science, &c.

Such is the Medical Act, 1886, representing the conceptive and parturient powers of three or four Parliaments and as many Ministries. We cannot affect enthusiasm for such a piece of legislation. Possibly the system of Inspectorships may work more effectively and even more economically than the system of Visitation hitherto followed. The introduction of the Privy Council as an authority to check and control the Medical Council, if anything more than a form, is a painful proof that the Medical Council cannot be trusted to act independently. We are glad to acknowledge that, somewhat in deference to our own representations, the frequency of such introduction has been materially diminished. The most boasted feature of the Act is the requirement of the triple examination in Medicine, Surgery, and Midwifery as henceforth a condition of *qualification*. But there is now scarcely an examination in which the three branches are not already included, and the Bill adds to the cost of qualifications by requiring the combination of corporations. The concession of direct representation has been long a foregone conclusion. But nevertheless, as those who have long laboured for it, we are thankful for it, and comment in another column on some of its aspects. In fine, we accept the Act of 1886 with some satisfaction, but with a painful feeling that the evils revealed by the Royal Commission remain unremedied.

SEA-VOYAGING has in recent years greatly advanced in favour as a therapeutic agent. Few vessels now start on any of the longer voyages without one or more passengers whose chief object is health, and the few fine Australian clippers which still hold the seas against the encroachments of steam frequently reckon on their list as many as a score of invalids for a single voyage. We see overtaxed statesmen and weary brain-workers of every class resorting to yachting for the resuscitation of health; and regular announcements now appear in the press of "invalid ships" advertised to sail the summer seas, and fitted up with every requisite to secure the comfort of the weak and ailing.

There can be little doubt that this custom rests on a firm basis of reason, and is amply justified by its results. Sea air is a marvellous tonic and restorative, and nowhere can it be enjoyed to such thorough advantage as on shipboard. It appears to owe its beneficial qualities mainly to its perfect purity and entire immunity from those sources of contamination which are more or less operative everywhere on land. Pure air can be enjoyed on the desert or on the mountain top, but in its highest perfection probably on the surface of the ocean. Here all the usual sources of atmospheric pollution — such as putrefaction, combustion, and effete animal matters — are conspicuously absent. Between sea and sky sweep unrestrained the ocean winds, ready to bear far away any taint of corruption which may from any chance have been generated. How vastly important in this consideration, in view of modern scientific teaching, need hardly be pointed out. This age sees in morbid germs the "power and potency" of a vast range of diseased action, and recognises, no doubt truly, in corrupted air the nidus in which alone these germs can acquire the development necessary for their full activity. Our present knowledge all points to the conclusion that in an ideally pure atmosphere all germ-begotten disease would be an impossibility, and the aim of modern preventive medicine is not so much to destroy the sources of contagion (which is probably for ever beyond our power), but to deprive them of those necessary conditions of activity without which they are comparatively innocuous and inert.

It is unfortunate that on shipboard, while perfect purity of air always exists on deck, a very different condition too commonly prevails in the saloons and sleeping cabins. Good air being always obtainable by stepping on deck, ventilation is often insufficiently attended to; the cubic space allotted to each individual is wholly inadequate for the delicate and ailing, and in many ships the evil odours in some manner mysteriously generated are indescribably nauseous and disgusting. In this respect steamers are much more at fault than sailing vessels. Now, the healthy passenger, who goes to sea merely as a means of reaching his destination, may afford to endure with what patience he can command the foul air of an unventilated saloon or the still more noxious atmosphere of a small cabin, where four people are crowded together in a space that on land would be thought ridiculously inadequate for one; but the invalid cannot tolerate such things without putting to the hazard the major part of the advantage which he hoped to gain by braving the perils of the sea. The first and most imperative requisite, then, of the invalid ship is adequate saloon accommodation, roomy sleeping cabins, thorough ventilation by day and night, and rigorous care in checking the evolution of foul gases.

Purity is not the sole virtue of sea air. Its remarkable equability is hardly less important, especially for consumptive invalids. Sudden changes of temperature are practically unknown upon the ocean, and the diurnal range of the thermometer there attains a minimum. Hence sailors enjoy a comparative immunity from diseases traceable to exposure, catarrhs are rare among all classes on ship-

board, and in tropical and subtropical regions passengers frequently sleep upon deck without injury. This equability is of the first importance to all sufferers from respiratory disease, who are prominent amongst the number of those who derive signal benefit from the sea voyage. The barometric range at sea exhibits for the most part great equability, and the changes of pressure are more regular and uniform than upon land. This is probably not without an important influence upon the organism. The impregnation of sea air with traces of bromine and iodine has also no doubt its part in the general therapeutic influence exerted.

One of the first effects of the ocean voyage, after the usual initial inconvenience of sea-sickness has been successfully surmounted, is a great stimulation of the appetite. Hence the choice and regulation of food on shipboard are matters of vital importance; but too often the dietary, even on the best ships, is arranged on a purely routine system, with little regard to change of climate or to the special needs of the invalid. In some ships roast beef and plum pudding greet the passenger with unfailing regularity even in the sultriest region of the torrid zone. Meat is abundantly supplied and liberally partaken of as often as three times daily, although the heat of the atmosphere and the scanty amount of physical exercise usually practised on shipboard should suggest even to the most thoughtless some moderation in the consumption of animal food. From such indiscretions spring the dyspeptic troubles which in so many cases constitute a serious set-off to the great benefits so usually derived from the ocean voyage. The dietetic principles which should prevail on shipboard are sufficiently obvious. In the higher latitudes, if the passenger take a reasonable amount of exercise, there is no reason why he should not eat and drink as has been his usual habit on land, provided he keep in view that at sea there is increase of appetite with decrease of activity. As the equator is approached, butcher's meat should give place to poultry, farinaceous foods should have the preference over the heavier articles of diet, fat in the form of such dishes as suet puddings should temporarily disappear from the daily bills of fare, and vegetables should be supplied as liberally as the exigencies of ocean voyaging permit. As regards drinks, there is nothing so grateful or so generally useful in the very hot latitudes as the simple juice of the lemon. Alcohol is injurious, and all hot drinks are at such times usually in a large measure voluntarily abandoned. As the vessel runs into cooler latitudes, the usual dietetic practices of the average Englishman may be gradually resumed.

With such simple and obvious precautions, the ocean voyage may take its place as one of our most valuable restoratives. It is applicable to most cases of debility, from whatever cause arising, provided there be neither great prostration nor marked irritability; it is especially valuable in incipient phthisis and in hereditary tendency to scrofula, and it finds one of its most useful applications in cases of retarded convalescence from surgical operations or acute disease.

THE interesting observations by Dr. COATS, which are to be found in another column, go far to determine a question that has exercised the minds of students of auscultation throughout the seventy years that this method of physical examination has been practised. What is the cause of the pulmonary breath sounds? Are they, as LAENNEC conjectured, due to the mere transit of air through the bronchial passages? Are they produced by the actual unfolding of the lung on its expansion, and the outflow of air from the lobules with expiration? Or are they extra-pulmonary in origin in whole or in part? Some of these conjectures are purely fanciful, and, since the universal adoption of the *veine fluide* theory, are quite untenable; but a clearly satisfactory solution is still complicated by the readiness with which sound waves are conducted through the media that we find in the respiratory apparatus. The doctrine that the respiratory murmur is wholly extra-pulmonary, and consists really in the sounds created by the passage of air through the glottis, modified by the peculiar texture of the lung through which they are conducted, has received some countenance both abroad and in this country. But this teaching was fairly disproved by the experiments of BOUDET and CHAUVEAU, and has practically received a *coup de grâce* at the hands of Dr. COATS, whose observations are the more important because they were conducted upon the human subject. By means of the apparatus which had been substituted for the larynx, after extirpation of that organ, Dr. COATS was enabled to test the auscultatory phenomena when the glottic aperture was absent; and he was further able to modify the conditions of his experiments and thereby to arrive at juster conclusions. Thus, in the first place, where breathing was only carried on through the tracheal tube, the loud expiratory sound produced at the open mouth of the tube could be heard to be freely conducted all over the chest in the line of the tracheo-bronchial channels, but to be obviously damped by the pulmonary parenchyma. Since the conditions did not allow of a *veine fluide* being produced at the open mouth of the tracheal tube during inspiration, there was only a very feeble inspiratory murmur audible over the trachea, which became more intense as the lungs were reached, eventually assuming the characteristic vesicular character. This observation by itself is of much value, as showing not only the readiness with which the trachea and bronchi conduct an expiratory murmur, but that the pulmonary inspiratory bruit is probably solely produced at the infundibula. Again, by causing the patient to breathe through the narrower pharyngeal tube, the actual conditions of the glottis were simulated, with the result corresponding to the signs observed in the natural body. Lastly, the experiment was further varied by narrowing the tracheal tube, and thus again reproducing a "glottis," with the consequent generation of sound both during inspiration and expiration, the inspiratory murmur much predominating over the expiratory, in the direction of the current. The conclusion arrived at by Dr. COATS was, it will be observed, verified by a committee composed of Drs. GAIRDNER, NEWMAN, and STEVEN, and it amounts to an emphatic denial that the glottis has anything to do with the production of the normal vesicular murmur. Thus, as so often happens, do we find a theory which had been accepted by one generation overturned by another; and, small as the point in question may be, it is at least instructive for those who may pursue the path of inquiry that still remains open. We have now before us two sources of distinct

respiratory sounds — the laryngeal and the pulmonary. The limits of the former have been clearly ascertained; the precise mechanism of the latter remains matter of conjecture. By excluding laryngeal sounds from any share in the production of the vesicular bruits, we are driven to seek in the structure and mechanism of the pulmonary tissue itself for the conditions of these latter. But no one can assert that we know precisely in what way these sounds are produced. We find them modified in disease and variously altered with the varying textural changes in the lung, but a demonstration of their mode of production which shall also harmonise with these changes is still to be desired.

IF Europe is again this year to be visited with cholera in an epidemic form, it will probably be during this month that the diffusion will take place from the centres in which the disease has manifested itself since the cessation of the epidemic prevalence of 1885. It may therefore be convenient now to give a summary of the movements of cholera in Europe during the present year, in so far as official and other intelligence has been received in this country.

In France the disease has been almost entirely confined to the north-west, where the neighbourhoods of Brest and Quimper appear to have suffered in consequence of importation from the south. In several localities the disease was a continuance of that which prevailed before the close of 1885, and in others the extension was a new one. Early in January, Concarneau, Douarnez, Audierne, and Brest were attacked, and by the middle of March the cholera deaths which had taken place in those localities were 13, 27, 4, and 36 respectively. A later occurrence of the disease took place at Tréboul, where a large number of cases were announced to exist; but some exaggeration probably took place, for the mortality was limited to six cases. Since the middle of April no cholera intelligence has been received from France.

In Spain, cholera has during 1886 been altogether limited to the extreme south, in so far as any intelligence has been allowed to reach this country. Early in January the disease caused 11 deaths at Algeciras; about the same date 8 fatal attacks took place in the province of Malaga; and later on a summary account of what had taken place at Tarifa was received, from which it appeared that up to the end of the first week in March 63 deaths had been registered there. No further news has since been received on the subject.

Italy has been much more severely affected since the close of last year than either France or Spain. The first cholera deaths this year were announced from Brindisi early in April last, and the disease extended into May, by the end of which month 31 deaths had occurred. A cessation of fatal attacks then ensued, but after the middle of June the disease again began to cause a daily fatality. Up to the end of the month over 60 deaths took place, making a total of between 90 and 100 deaths at Brindisi. When the disease first appeared at Brindisi, 2 deaths also occurred in the neighbouring town of Monopoli. The disease further extended into the province of Brindisi, where fatal attacks took place during May, and then, after a cessation, recurred and were maintained up to the end of June, some 70 deaths in all being registered. Soon after this the disease was found to prevail in the neighbouring port town of Bari, where fatal attacks were first noted about the middle of May, and where, with but occasional intervals, they have been maintained into the third week of June. In May 70 deaths took place there, and to these must be added some 35 during the month of June, or over 110 in all.

But before Bari was infected intelligence came as to the reappearance of the disease in the north. During the winter months cholera occurrences had been announced in the districts between Venice and Trieste, and early in May isolated deaths occurred again in Venice. Steadily the disease made progress, and by the end of the month over 150 fatal attacks had occurred there, the largest fatality being reached towards the end of the month. With the onset of June the fatality was maintained, but since the middle of the month there has been a steady tendency to decrease until the fatal cases have been reduced to about one a day. During June over 210 deaths occurred, making in all a fatality exceeding 360. During the same period of two months, over 300 cholera deaths took place in other localities in the province of Venice. Setting aside a few isolated attacks due to importation, no further outbreak of importance took place until Codigoro, a port town to the south of Venice, on the estuary of the Po, was announced to be infected during the fourth week of June, and where 41 deaths were stated to have taken place. With this single exception, cholera in Italy is less fatal than it was about a month ago, but nearly 950 deaths have occurred in that kingdom this year, and the tendency to abatement, with subsequent recurrences on a wide scale, is too important an element in the natural history of cholera diffusions to give much hope of a real decline in the prevalence at this time of the year. July and August are essentially the cholera months for Europe, and these months we still have to face.

THE enactment of direct representation of the profession in the Medical Council is a historical fact to be considered. It is painful to remember that cliquism has always existed in the profession. It used once to dominate nearly all hospital appointments, and he would be a bold man now who would deny that it sometimes yet tells in elections that should be purely impartial. We shall not here dwell on the past. At length, against Governments, and against the whole tone and letter of the Medical Council, the Legislature has recognised the reasonableness of giving to medical men, whose fees maintain the Medical Council, whose education is supposed to be regulated by it, whose names may be erased from the Register by it, a representation has been conceded. The representation is indeed inadequate; its proportion to that of the representation of officialism and "interests" will be that of one to five or six. But, such as it is, it is at last a fact. Let us hope that other lesser authorities—the councils of our colleges, &c.—will take a lesson and show a little more respect to the claims of the rank and file of the profession. It is premature to discuss the persons who should be entrusted with this honourable duty. It is more to the point at present to consider the nature of the duties they will be called upon to discharge, and the general principle which should guide the profession in selecting its representatives. There are many reasons

why this representation should be begun well, both as regards the method of conducting the election and the selection of candidates.

First, as to the method of election. Our readers will see by another article, and by the Act itself, which we publish to-day, that the election is by voting-papers. Each member of the profession in November will receive from the Branch Council of the division of the kingdom in which he lives a voting-paper, in which he will be able to vote for as many direct representatives as are to be elected for the division. It is of the greatest possible moment that this election should not degenerate into a contest like that for a Member of Parliament. Canvassing in the ordinary sense of the word should be discouraged. The number of candidates should not be too great, and when nominated, as they require to be, by at least twelve members of the profession, they should leave their election very much to the unbiased vote of the members of the profession.

The direct representatives of the profession will have it in their power, we trust, from time to time to be of much service, primarily to the public, and secondarily to the profession. But they will have to keep within the four corners of the Medical Acts, and they will best discharge their own duties to their constituents by strictly observing the limits of the law under which they act. This law may ultimately have to be amended, and for once the representatives of the profession will have the vantage-ground of the Council for urging the necessary amendments. But for the present all they can do will have to be done under the present Acts. Their duties will have reference chiefly to—(1) the regulation of the subjects of preliminary and medical education; (2) the accuracy of the Medical Register; (3) the perfection of the Pharmacopœia; (4) the fairness and efficiency of the examinations of the various medical authorities; (5) the case of members of the profession lying under imputation of unprofessional or criminal conduct. These are all weighty subjects. They have hitherto been treated by the Medical Council too much as if they were the peculiar care of the medical schools and examining authorities. In future we may hope to have practical contributions to their settlement by members of the profession who view these questions from the standpoint of general practice. Whoever the gentlemen may be to be chosen to represent the profession, it seems desirable that they should be chosen chiefly from the ranks of general practice. Members of the consultant and the official section of the profession already practically make up the Council. It is time that the ranks of general practice should be represented.

ON the occasion of the celebration of the jubilee of the British Medical Benevolent Fund, Sir James Paget, who has taken immense trouble to render the gathering a success, will be supported by Sir W. Jenner, Sir A. Clark, Sir J. Lister, Sir Prescott Hewett, Sir J. Fayrer, Sir Dyce Duckworth, Dr. Habershon, Mr. G. Pollock, Dr. Clifford Allbutt (Leeds), Mr. Cadge (Norwich), and Mr. Lund (Manchester). Cardinal Manning and the Dean of Gloucester will be among the visitors. The benefits conferred by this fund upon the members of the profession have been but recently stated in a forcible manner by Dr. Broadbent; and we sincerely hope that, despite the dissolution of Parliament and the consequent turmoil of a general election, the jubilee celebration will earn the title of "a great success."

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON.

MR. MAGNUS'S scheme for reconstituting the University passed through Convocation on Tuesday last without any substantial modification, except the omission of the clause giving power to the Senate to confer honorary degrees. Convocation, though not without protest on the part of many members, has pledged itself to the adoption of fundamental changes, bringing the authorities into closer contact with the teachers. Certain educational institutions having one, or more than one, faculty of university rank are to be admitted as Constituent Colleges; a Council of Education, composed of representatives of Convocation, of Constituent Colleges, and of the Examiners of the University, is to be formed; and the Senate is to be modified by the introduction of direct representatives from University and King's Colleges, the Royal Society, the Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society. By consenting to such a scheme as a basis of conference with the Senate, Convocation, after summarily rejecting Lord Justice Fry's proposals, has, under the guidance of Mr. Magnus, practically acceded to every demand which has been made by those who support the Teaching University scheme. The power of the teachers becomes a substantial factor in the University, instead of being consistently ignored or resisted. Moreover, the institution of an intermediate body between the Senate and Convocation, no matter whether it be called a Council of Education or a Board of Studies, is a distinct gain to the teaching element, and by it many salutary changes in the examinations and regulations are sure to be initiated. The change in the vote of Convocation on Tuesday from that given in November last shows how little value can be attached to the opinion of such a fluctuating body, and it was apparent at the meeting that most of its interest in the reform had dwindled away. About seventy members only were present, and at no time were there a dozen medical graduates at the meeting. Since the formulating of Lord Justice Fry's scheme, the chief reformers on the teaching line—such as Sir Edward Fry himself, Mr. H. Matthews, and Dr. Pye-Smith—have been appointed on the Senate, and the vote for Dr. Wilks will add another distinguished Fellow on the same side. The centre of interest has shifted now from Convocation to the higher body.

THE CROONIAN TRUST.

THE increased income from this Trust, which has caused so much perplexity to the Fellows of the Royal College of Physicians, was finally disposed of at the meeting on the 29th ult. The subject had been before the College at several previous meetings; the Council had submitted two schemes, and several eminent Fellows had proposed amendments, so that only after a protracted discussion could the final voting be taken. We venture to think that the decision not to tie the hands of the College authorities any tighter than is absolutely necessary for the satisfaction of the legal conditions of the Trust is a very wise one. The very fact that it is now proposed to alter Lady Sadlier's bequest from the prosecution of the study of Anatomy, to which she devoted it, to the wider area of "Anatomy, Physiology, and Pathology, with a view to the prevention, control, and cure of diseases," shows plainly that what is considered the most urgent need in the progress of medical science in one generation is in an entirely different position in the next. For this reason especially, we are pleased to see that the exclusive devotion of the

Trust to the prosecution of Therapeutic Science was rejected. Therapeutics now comes under the Trust as a branch of physiology in respect to the control and cure of disease just as physiological chemistry does, but it has not a primary claim on the attention of the lecturers and investigators who will be appointed by the College on this foundation.

THE INTERNATIONAL MEDICAL CONGRESS.

IN spite of differences on code questions, territorial questions, &c., in the profession of the States, it is evident that there is to be an International Medical Congress in Washington. This being so, it ought to be the endeavour of all parties to make it a complete success, worthy of the nation that is to act as host, and the nations that are to be received as guests. Much has yet to be done in this way. Undoubtedly some of the best known leaders in the States are still standing aloof. We should be glad to hear that they were abandoning that attitude and kindly taking to arrangements which are the best compromise that can be made in the circumstances. Dr. Nathan S. Davis, of Chicago, is to be president in place of the lamented Dr. Flint, and the preliminary organisation of the Congress is in a forward state. Dr. Davis is a veteran in the profession, and much respected, though less known in Europe than some of his *confrères*. A correspondent, who is well informed, thinks the arrangements are now on the high road to success. He says that efforts will be made greatly to reduce the cost of tickets for the voyage and for visiting all parts of the country, and that arrangements in Washington are likely to be satisfactory. Another valued correspondent, writing from New York, says: "The Congress is to be, and it is to be a success. The troubles are healing over, and before the Congress meets I think all difficulties will be, to all intents and purposes, settled."

ELECTION MORTALITY.

THERE is a profound and, as yet at least, inscrutable mystery about the operation of those laws of nature which determine the rate of mortality. This is equally true of the civilised and of the uncivilised portions of the human race, scattered over the whole face of the earth, under the most diverse conditions. If at any time it seem likely that the rate of mortality will fall below the normal point, some special "visitation," as it is called, occurs, and the balance of life and death is readjusted. History supplies conclusive evidence of the truth of this general proposition. It is nevertheless, startling to be confronted with the facts about mortality, and perhaps no others are more striking than those which show that every great commotion, whether of mind or muscle, produces its crop of deaths due to the disturbance set up or the effects following upon it. A general election forms no exception to the working of this law. That of 1886, following as it does close upon the election of 1885, is only too likely to be fruitful in this terrible respect. Already there have been cases of death occurring suddenly as the result of exhaustion by nerve excitement, and by disease either contracted or aggravated in the course of the proceedings connected with the election. It is more than probable we shall have to deplore further losses. There is something in this wholly apart from the mere incidence of mortality on the proportion of persons occupied with the political crisis. We know how—resting for its basis of fact on the incidence of the death-rate proportionally—there has grown up a strongly-rooted belief that of thirteen persons dining together on any single occasion one will die before the end of the twelve months following. The truth is, that of any large number more than one is likely to die, and so on. The same law of proportional incidence of the average mortality, of course, applies to classes or sections of the community generally; and it is inevitable that of the thousands actively engaged in the election now in progress, a notable number must, in the nature of things, die before it is completed. Outside this, there is the fact that the perturbation into which minds and bodies are thrown by the exceptional business of the crisis has what must be regarded as its own proper fatality. In short, a definite number of persons will be *killed* by the election. With a view to minimise that number as far as possible, it would be well if the fact last mentioned could be more generally understood. There is the making of death in the extreme mental excitement stirred by the election, in the exhaustion of brain and muscle which it must cause, and in the exposure to heat or cold which cannot be avoided. It is easy to make light of these matters, but that does not in the least degree diminish their importance. Far more reasonable would it be to recognise the risks entailed by exceptional activity, or exposure, or both, and to meet the dangers which actually exist with rational measures of precaution. Those who are conscious of weakly organisms would be simply prudent to avoid too severe demands upon their strength and vitality; and those who, while thinking themselves to be sound and strong in mind and body, are conscious of being what is pleasantly described as "excitable," should understand that irritability seldom exists without weakness, although the seeming energy of excitable persons is apt to mask their want of real power and stability. It is better to be a little niggardly in the output of strength than to die of exhaustion, and discretion is certainly the better part of valour in respect to the running of risks by undue exertion or exposure. It is no part of our business to suggest or even countenance the neglect of duty in a social or political crisis; but there are always two ways of doing a thing, and those who must need mingle in the fray of a particularly hot election contest will find the coolest and the most self-controlled way of doing what has to be done at the behest of duty the best.

REMARKABLE ACCIDENT WHILE TAPPING A HYDROCELE.

A RARE and remarkable accident during the ordinary operation of tapping a hydrocele is reported from Bordeaux. The patient was a healthy peasant of forty-four years of age, who had never suffered from any venereal affection. The hydrocele, which was on the right side, had been in existence some two years, and had followed an accidental blow. As it continued to increase in size, he sought advice, and was admitted into M. André Boursier's clinic. When the trocar was introduced, about 125 grammes of straw-coloured fluid came away. M. Loumeau, who performed the operation in M. Boursier's presence, then, having satisfied himself that the extremity of the cannula was free in the cavity of the tunica vaginalis, proceeded to inject gently sixty grammes of a mixture of tincture of iodine with twice its volume of water. All at once the patient complained of severe pain in the cord and the loins, with cramp in the right forearm. The ulnar border of the right hand then became flexed, the ring and small fingers being completely flexed, while the index and middle fingers, though extended as far as the second and third phalanges were concerned, were flexed at their metacarpo-phalangeal articulations. The thumb also was flexed and brought near the fingers. Exactly the same position was shortly afterwards assumed by the left hand. There were no convulsions or syncope. After a few minutes the "ulnar *griffe*" began to relax, and the index and middle fingers became flexed completely on the hand, which itself became strongly flexed on the forearm. All the muscles on the front of the forearm became hard and contracted. The palmar fascia was strongly retracted, and

the palmaris brevis quite tense. On both sides the ulnar affection had given place to contraction of the muscles supplied by the median nerve. The patient was unable to articulate a sound, his tongue hanging loosely in the buccal cavity. The muscles supplied by the hypoglossal nerve were also contracted, but for a short time only. The forearms were shampooed, and after nearly an hour the muscles relaxed. The patient recovered completely, and left the hospital after a few days. M. Loumeau has been unable to find an example of this kind in medical literature; but M. Desplats of Lille published a paper on pleural eclampsia last year in the *Semaine Médicale*, in which he refers accidents connected with pleural operations to four categories: (1) Toxic action of the liquid injected, (2) true epilepsy, (3) uræmia, (4) reflex action. The author surmises that the accident was due to reflex irritation of the nerves of the serous membrane by the liquid injected. The testicle, it may be remarked, was in no way injured. Whatever explanation may be offered, the fact remains, which is itself sufficiently extraordinary, of a healthy peasant man of middle age being thrown into a state of severe nervous spasm by the performance of a very simple and very common surgical proceeding.

OATHS IN COURTS OF LAW.

IT will be remembered that several letters recently appeared in these columns under the heading "Kissing the Book." They arose from the circumstance that a medical witness, when giving evidence in the Divorce Court, objected to kiss the book presented to him, on the grounds that, as the two previous witnesses were common prostitutes, he might incur a risk of infection. Simultaneously, several medical witnesses in different parts of the country made each a similar objection, the difficulty in each case being eventually got over by the witness being permitted to kiss the open book. Mr. John Patterson, J.P., of Liverpool, has recently addressed a letter to one of the local daily papers, in which he calls attention to an Act of Parliament which is still in force, and which runs as follows:—

"1 and 2 Victoria, c. 105, 14th August, 1838.—Be it declared and enacted—That in all cases in which an oath may lawfully be and shall have been administered to any person, either as a juryman or a witness or a deponent in any proceeding, civil or criminal, in any court of law or equity in the United Kingdom, or on appointment to any office, employment, or on any occasion whatever, such person is bound by the oath administered, *provided the same shall have been administered in such form and with such ceremonies as such person may declare to be binding;* and every such person, in case of wilful false swearing, may be convicted of the crime of perjury in the same manner as if the oath had been administered in the form and with the ceremonies most commonly adopted."

Mr. Patterson contends from this that any Presbyterians may claim to be sworn as their co-religionists in Scotland and Ireland are, *with uplifted hand*. We have taken some pains to ascertain the law upon this point, and find that not only is this true, but also that any native of Scotland or other country where the oath is administered with uplifted hand may claim to be sworn in a similar manner. And, moreover, any person who declares that that is the method of taking the oath which he considers binding may claim to be so sworn, be his or her nationality or religion what it may. All that is required by the Court is that an oath shall be taken before it. It will thus be seen that all those witnesses who object to kissing the book can avoid doing so, provided they declare that by holding up the right hand while the words of the oath are repeated they consider themselves duly sworn. Whether this may lead to the universal adoption of the Scotch oath remains to be seen, but there can be no second opinion as to its being preferable to the present mode adopted in England. Even if the risk of infection were remote, the successive handling and kissing of the same book by a number of witnesses is, to say the very least, an uncleanly practice. Should any objection be taken by the Court to a wholesale preference for the uplifted hand, perhaps each witness will be permitted to bring his own Testament.

THE INDO-COLONIAL EXHIBITION AND EMIGRATION.

THE opening of an Emigration Inquiry Office in the Exhibition at South Kensington will for several reasons be regarded as an important step in the right direction. As to its economic significance there is little need for us to speak, though its salutary influence in helping to deplete an overcharged labour-market is obvious. Another aspect of emigration should not be forgotten. There are many in humble life who are and may long continue to be physically sound, but who are constitutionally unsuited to our uncertain climate. Everyone is familiar with the lymphatic type so common in Teutonic races. Capable of much muscular exertion, but dependent in a marked degree upon wholesome conditions, it suffers unduly by the crowded and laborious life of great cities. Emigration to the Southern Colonies offers, to any who inherit this predisposition, the opportunity of labour out of doors in an equable climate, and in that the best assurance of healthy development with a maximum of usefulness in time to come. For working men generally, indeed, if they be healthy, active, and sober, the chances, both vital and social, are often more favourable in wider Britain than at home, more favourable in point of daily bread, and, for the enterprising, of advancement. At the same time, all will admit that an emigrant rush is by no means desirable either for the emigrants or the country they leave behind. Fortunately it is not likely to occur. Of our unemployed but able population, particularly in the towns, we may still say there is enough and to spare.

ERYTHEMA AS A SPECIFIC DISEASE.

THE simplification of an overburdened terminology and the reduction of numerous lesions under one common head is as important a process in the advance of medical science as the converse operation; and in no department can this be more satisfactory than in that of diseases of the skin, where the terms descriptive of morbid states are excessive and not always used in the same sense. The number of species which corresponded to the genus erythema was formerly very large. An important advance was, however, made by Hebra when he united them under the term Erythema polymorphœa, thus dispensing with such species as E. papulatum, circinatum, nodosum, &c., which are only used for purposes of description. But a further simplification of this group is arrived at by M. Villemin, who read a paper at the *séance* of the Academy of Medicine on May 18th, in which he combated the very prevalent idea that erythema was nothing more than a local disease of the skin, and proposed that in future we regard it as a specific disease, of which the skin lesion bears a part similar to that played by the rash in scarlatina. This is not altogether a new idea. Erythema has been regarded as connected with rheumatism or as one of the manifestations of the rheumatic diathesis; some observers have thought that the joint pains which so often accompany the disease are secondary to it, in a similar way to the joint affections which occur during the course of scarlatina. But M. Villemin regards the pains in the aponeuroses and the swelling in the joints as manifestations of one disease, of which the cutaneous eruption is also another sign. His chief reason for coming to this conclusion is that the various manifestations all yield in a marvellously rapid manner to

the action of one drug—viz., iodide of potassium,—which tends to prove that they all have a common origin. The effect of this drug is surprising from its rapidity; given in doses of thirty grains, the fever, pain, and rash are held in check in the first twenty-four or forty-eight hours; while in three or four days there is no trace of the disease, though, as may be supposed, a slightly longer time is required to allow of the absorption of any liquid which has been extravasated into the skin. The general truth of this view will no doubt be admitted, but many may object to the method. Because several diseases are benefited by the same drug, it in no way follows that they have a common origin.

REPEATED VACCINATIONS IN THE INCUBATION STAGE OF SMALL-POX.

A RUSSIAN medical student, M. Gubert, recently performed a series of experiments with calf vaccine, chiefly making use of dogs as subjects for the purpose of deciding whether there is any use in vaccinating persons (1) who have already been infected by small-pox, (2) who are in the incubation stage, or (3) in whom the disease may have actually begun to manifest itself. This question, he says, has generally been decided in the negative, on the ground that insusceptibility to small-pox is only obtained thirteen or fourteen days after vaccination—that is, after a period at least equal to that of the incubation stage. Having somewhat modified the method of vaccinating, M. Gubert, who describes his experiments in the *Zemskaya Meditsina*, was able to obtain vaccine vesicles in a shorter time than usual. By repeating the vaccination on three successive days he was able to produce mature vesicles in four or five days. This rapid saturation of the organism with the vaccine virus enabled M. Gubert to arrest the development of the disease in twenty-seven persons, in whom, he states, he was quite certain that the small-pox was incubating, while in twelve others the disease was so modified as to be considered only varioloid. The vaccination was performed in some cases when the temperature had already reached 40° C. It should be remarked that all the experiments were carried out with calf lymph, so that we are as yet without information as to whether humanised vaccine could be made to "saturate the organism" sufficiently to produce mature vesicles in four or five days. At all events, M. Gubert's observations are interesting, and worthy of repetition by other practitioners.

TEA-DRINKERS' DISEASES.

IT is not a little curious that the diseases arising from the wrong use of tea should be met with in greater frequency in countries foreign to its growth. It might have been supposed that where production went on there would be found those evils that attend the consumption of tea in their greatest extent; but such does not appear to be the case. The diseases due to tea are well known to doctors, but the public seem to be strangely indifferent to the teachings of their medical advisers in these matters. Recently in France M. Eloy has reminded medical men how vast is the number of diseases owning an allegiance to the dominion of Queen Tea. The list of headings in M. Eloy's paper is well calculated to arouse attention, and, we hope, to lead to some abatement of this widespread disorder. America and England are the two countries that are afflicted most with the maladies arising from the excessive consumption of tea. Individuals may suffer in a variety of ways. It is customary to speak of acute, subacute, and chronic "theism"—a form that has no connexion with theological matters. It is possible to be a "theic" by profession or a "theic" by passion. The predominance of nervous symptoms is a characteristic of theism; general excitation of the functions of the nervous system may be observed; or the weakness may be noted more especially in the brain as distinguished from the spinal cord. Perversion of the sense of hearing is not at all an uncommon symptom—patients hearing voices that have no real or objective existence. The irritability that overtakes women so frequently may sometimes be clearly traced to an excessive indulgence in afternoon tea. It is a mistake to suppose that it is the poor sempstress who is the chief sufferer from theism. No doubt the tannin which tea that has been standing long contains does a great amount of mischief, but the derangement that it causes hardly belongs to that class of diseases with which we are at present concerned. Rather does theism belong to that genus of disease in which morphinism, caffeism, and vanillism are found. The habit of tea-drinking is one that grows on its victims like the similar ones of opium or alcohol. Taken in strict moderation, and with due precautions in the mode of preparation, tea is, like alcohol, a valuable stimulant; in its abuse there is also a certain analogy. There is hardly a morbid symptom which may not be traceable to tea as its cause. This is a fact that general practitioners often use to their own satisfaction and to their patient's advantage, if it happen to be that kind of patient who does not object to make some sacrifice in order to be rid of troubles.

AMALGAMATION OF THE PARKES MUSEUM AND SANITARY INSTITUTE.

THE definite amalgamation of these two institutions, which are both intent upon very similar work and which already occupy the same premises, has been for some time debated by the councils of both Societies. The formal assent of the members of the Sanitary Institute has already been obtained, and on the 23rd ult. an extraordinary general meeting of the members of the Parkes Museum was held for the purpose of ascertaining the views of the members on this important question. Sir Robert Rawlinson, the senior vice-president, was called to the chair, and among those present were Sir Thomas Crawford, Inspector-General Lawson, Mr. F. D. Mocatta, Captain Douglas Galton, Professor de Chaumont, Professor Corfield, Mr. Rogers Field, Mr. T. Twining, Dr. Steele, Mr. Berkeley Hill, Dr. Poore, and Dr. Parkes. It is satisfactory to state that the proceedings were characterised by an absolute unanimity of opinion, and a series of resolutions were passed, to the effect that the Parkes Museum is willing to amalgamate with the Sanitary Institute. A special committee, composed of members of the two bodies, will be appointed for arranging the details of amalgamation, and application will be made to Government to grant a Charter to the new Society. Both Societies have been in existence for ten years, and each has made steady progress in the work which it was established to carry out, and each has grown steadily in public estimation. Union is strength, and the new body must prove a very strong Society, and, looking to the position and eminence of many of the members, one calculated to have great influence with the public in guiding it in sanitary matters. There ought to be no difficulty in getting the required Charter, and certainly a thoroughly well established Society which shall serve as a rallying ground for the rapidly increasing number of persons interested professionally in sanitary science is very much wanted. The last work accomplished by the Parkes Museum has been very successful. This was a course of lectures given by a number of eminent sanitarians, and intended specially for the benefit of sanitary inspectors. Although the notice given was short, no less than sixty-four gentlemen entered for and attended this course of lectures, and the result of the examinations lately held by the Sanitary Institute (at which there were fewer failures than at any previous

examination) shows that the lectures were of solid benefit to those who attended. We understand that a second course is to be given. The arrangement of the library is proceeding satisfactorily, and all the books have now been catalogued by Mr. Taylor. The numerous pamphlets are in course of classification. The library now comprises about 6000 volumes, and it is to be hoped that the medical officers of health throughout the country will not forget to keep this central sanitary library well supplied with their annual reports and similar publications.

THE VOLUNTEER MEDICAL SERVICE.

THERE has been recently raised a considerable interest in the development of the medical department of the Volunteer army. Much has been done in London and in other populous centres; even in country parts the movement has attained large proportions. An instance of this occurred at Redcar on Saturday last, when the 2nd Volunteer Battalion of the Yorkshire Regiment was inspected after a week under canvas. This battalion, which is 600 strong, is largely recruited from the rural districts, although the headquarters are at Scarborough. The medical department consists of three surgeons and forty-one non-commissioned officers and men, most of whom wear on their right arm the Red Cross brassard, received after examination. The surgeon in command is Dr. J. W. Taylor of Scarborough, to whose zeal and intelligence the detachment owes its development and efficiency. To make up the full strength of a bearer company (sixty-four officers and men), we understand recruits are only waiting to be enrolled. So far as we know, this is the first bearer company that has been actually formed in the north of England, although it has not yet received official recognition. The bearers marched past as a company with their officers in rear of the battalion, and afterwards took part in what is known as "the attack." By permission of the colonel in command several men were permitted to fall out and feign injuries received in action. A large number of persons assembled at the collecting station, to which the "wounded" were carried, and great interest was displayed during the unloading of the stretchers. Colonel Barratt, the inspecting officer, also rode up to see the wounded cared for, and afterwards inspected the whole bearer company, and saw them execute the stretcher drill and other movements. He also presented certificates of proficiency to those bearers who had passed the examination since the last inspection. The equipment of the company consists of ten stretchers (McLure's pattern), ten water-bottles, a dressing haversack, and a field companion. The surgeons also carry small flags for signalling purposes. We commend this example of efficiency to volunteer surgeons in other places than North Yorkshire.

HEALTH OF PRESTON.

THE borough of Preston is now suffering from a severe epidemic of measles, which caused no fewer than 86 deaths in the six weeks ending last Saturday, equal to an annual rate of 7·2 per 1000 of the estimated population. The epidemic commenced in February, since which 116 deaths from the disease have been registered within the borough. This fatality is the more noteworthy since epidemics of measles prevailed in this town in 1882 and 1884, causing 125 and 61 deaths respectively. In connexion with the high death-rate from all causes that has prevailed in recent years, it is impossible not to view this exceptional mortality from measles as evidence of unsatisfactory sanitary condition. Preston was added to the list of large towns dealt with by the Registrar-General in his Weekly Return at the beginning of the year 1882, and it appears that the mean annual death-rate in the borough in the four years 1882-5 was 26·9 per 1000, which was higher than the mean rate in the same period in any other of the twenty-eight large towns, and exceeded the average rate in those towns by no less than 5·4 per 1000. In other words, the mortality in Preston during those four years exceeded the mean mortality in the twenty-eight towns (including Preston) by fully 25 per cent., signifying that in equal numbers living there were 5 deaths in Preston to every 4 in the twenty-eight towns. The excess of mortality among infants in Preston was proportionally greater than the mortality at all ages. Infant mortality, measured by the proportion of deaths under one year to registered births, averaged 214 per 1000, against 160 in the twenty-eight towns, showing an excess equal to 34 per cent., or more than a third. Summer-diarrhœa mortality in Preston was more than twice as great, and "fever" mortality (principally enteric) nearly twice as great, as the mean mortality in the twenty-eight towns. It should be stated that the present population of Preston is locally considered to be under-estimated, but even should this be to some extent the case, it would not in any way affect the excess of infant mortality measured by the proportion of deaths of infants to registered births, and the marked decline in the recorded birth-rate of the borough since 1881, is against the probability of any considerable under-estimate of its population.

CIRCULAR CAUTERISATION IN OPACITY OF THE CORNEA.

M. LOUIS VACHER of Orleans finds that in cases of corneal sclerosis or epi-scleritis better results can be obtained by circular cauterisation lightly performed with a loop of wire heated by the galvanic current than by the more usual method of passing a knife round the edge of the cornea. In one case, after eighteen months of this treatment, a patient, who had been unable to see from corneal opacity for fourteen years, recovered the power of vision. In another, a cornea which had been absolutely covered with leucoma for ten years, had in two years become sufficiently transparent for the performance of iridectomy. M. Prouff confirmed M. Vacher's statement, stating that he himself had three times operated in this manner with the most complete success.

RE-ELECTION OF MEDICAL OFFICERS OF HEALTH.

WE regret to learn that the Chesterfield rural sanitary authority have refused to receive a report from their medical officer of health under circumstances which occur more frequently than they ought to do. The question of the reappointment of Dr. Angus Mackintosh has more than once arisen, and the Local Government Board have never disguised their feeling that he is an able officer, and as such they have strongly objected to his being replaced by another officer. About a fortnight ago Dr. Mackintosh presented his authority with a report, but they refused to read it, and this because his appointment had not yet been confirmed by the Local Government Board. If they received it they held that they would thereby acknowledge him as their officer, and hence be liable to pay for his services. But in the absence of the needed confirmation of the reappointment, the auditor would have surcharged them, as he did once before. With whom the responsibility for the delay rests in this instance we cannot say; on a former occasion it rested with the local authorities concerned. But such delays are by no means unfrequent, and when surcharges are made they are almost invariably cancelled by the Local Government Board. So long as this somewhat roundabout method is adopted no wrong to any individual is done, but there is no power to make an authority pay for services rendered during the interval between the period for which

services were originally sanctioned and the receipt of the sanction for the reappointment. At the date we refer to Dr. Mackintosh had for two weeks performed all the duties attaching to his office, and for this he will apparently receive no remuneration. In future cases it should be a rule that the arrangements for re-election should be so timed that, allowance being made for such contingencies as cause delays, all the formalities can be completed before the expiration of the current term of office.

THE DANGER OF SYNCOPE IN HOT BATHS.

IT is surprising that deaths by syncope during the use of hot baths are not more common than the coroner's court returns would show them to be. The peril of faintness by the mere determination of blood to the surface of the body, thus quickly depriving the heart of its usual normal support and stimulus, is very great. In cases of muscular weakness of the heart this danger must be imminent whenever the "hot" or even the "warm" bath is used. Apart from this obvious risk, however, there is always the possibility that in weakly or too impressionable states of the nervous system the peripheral stimulation produced by the application of heat to the whole of the cutaneous extremities of the afferent nerves may so act on the centres as to arrest the evolution of energy by an inhibitory influence. It is doubtful whether we lay enough stress on this consideration when prescribing the use of such external agents as act on large areas of surface and strongly impress the nerves there commencing. We know how burns of even moderate severity may kill by the impression they produce on the centres of vitality from the periphery. There is much to learn in regard to the nature and extent of the central effects which may be thus caused. Whether for good or evil, the application of heat or cold to the whole surface is a potent measure, and one that ought not to be recklessly resorted to, more especially in cases of great susceptibility, involving such excitability of the nervous centres as often coexists with fairly good health in a weakly body.

FAMILY LIKENESS.

ANY individual may be regarded as a very complex mingling of widely different bloods. To go no further back than the grandparents, he must be composed of at least sixteen different natures. It is not to be wondered at that such remarkable combinations should lead to great variations. The wonder seems rather to be that members of a family should resemble one another as much as they undoubtedly do. Sometimes in face, sometimes in form, frequently in the gait, gesture, and tone of voice, family peculiarities make themselves apparent. To many of these traits Mr. Francis Galton has devoted his attention. His latest interest has been shown in the colour of the eye. The tints of the eye for the purposes of inquiry were divided into "light," "hazel and dark-grey," and "dark." "The heritage of peculiarity" in relation to eye-colour for any child was found to amount to one-fourth from each parent and one-sixteenth from each grandparent.

CHILDREN'S HELP FOR CHILDREN'S HOSPITALS.

As a development of the Hospital Sunday and Saturday collections, a movement has been organised amongst the Sunday-school children in Birmingham, from which the Children's Hospital in that town receives very substantial support. To Councillor Wallis belongs the credit of having suggested the idea in 1880, but its success would have been very questionable if it had not received the warmest encouragement of the Hospital Sunday Committee and the most generous and steady co-operation from its honorary secretary, Mr. W. N. Fisher. The collection was made last Sunday, and for the future it is proposed to set apart for this special object the last Sunday in June. A few weeks must elapse before all the schools pay in and the total can be cast, but already facts warrant the hope that this year's proceeds may exceed those of previous years, which were as follows:—1880, £343 11*s.* 6*d.*; 1881, £231 16*s.* 5*d.*; 1882, £266 2*s.* 4*d.*; 1883, £234 3*s.* 1*d.*; 1884, £271 5*s.* 1*d.*; 1885, £327 17*s.* 6*d.* Ministers of all religious denominations and Sunday-school superintendents have worked the scheme with unsectarian and truly benevolent zeal, and it is most satisfactory to note that advertising and printing are the only items of expense. In the future very material support may be anticipated from the Board schools, as many of their teachers have signified willingness to co-operate, and the Chairman of the Birmingham School Board has sanctioned their doing so.

EFFECTS OF DRUGS ON THE SWEATS OF PHTHISIS.

DR. ABLETSOFF, who has made a number of accurate observations on the effects of various drugs upon the sweats of phthisical patients, finds that hydrochlorate of pilocarpine, given in doses of a twentieth of a grain, produces no limitation of the sweats in a very large proportion of cases; but its use frequently causes or increases gastro-intestinal irritation and sleeplessness, and, in fact, makes the general condition of the patient worse. With doses of from one-eighth to one-sixth of a grain the diurnal and nocturnal loss of weight almost always increases, and with doses of from one-twentieth to one-tenth of a grain the loss is augmented in the majority of cases. The reasons why this drug has been recommended for phthisical patients are probably to be sought in its expectorant action; but though as a matter of fact the amount of sputum daily expectorated is increased by the drug, it has no advantages whatever over other remedies whose effects in other directions are not so deleterious. Homatropine, picrotoxin, and duboisin distinctly decrease the cutaneous perspiration in healthy subjects, the latter drug having the greatest effect. For phthisical patients, however, who are weakened by exhausting sweats, more suitable drugs will be found in agaricin and homatropine, as duboisin and picrotoxin frequently produce other and undesirable effects.

NORTH-EASTERN WATERING-PLACES.

THE new line of railway between Scarborough and Whitby will prove a great boon to the visitors of both places, as opening up some of the wildest and most romantic coast scenery in the kingdom. Robin Hood's Bay and The Peak will prove, no doubt, the favourite excursions. The former we prophesy, will ere long rise from its position of a mere fishing village to that of a well-frequented seaside resort, for, in addition to its wild coast and its beautiful inland scenery, it offers excellent sites for building, and natural advantages for dealing with the great problem of all watering-places—viz., drainage. Among the north-eastern watering-places, Saltburn has within the last few years progressed most rapidly in relation to its size, and care has also been taken with its growth to maintain the sanitary requirements of the town, and one of our Commissioners, who recently visited it together with Scarborough and Whitby, reports himself much pleased with all he saw. Saltburn is naturally much quieter than its larger neighbours, and more suited for those who require rest and quiet rather than change and amusement. The wooded glens with their picturesque streamlets, are admirably adapted for invalids who are unable to take long walks. At all the watering-places along the coast that our Commissioner had

an opportunity of visiting he was much struck by the attention now paid to sanitary details, in marked contrast to the state of affairs some ten or twelve years since—not only with respect to drainage and water-supply, but in such matters as scavenging and cleansing. At Scarborough, for instance, during Whitsun week, although the town was daily thronged with excursionists, the streets each morning were thoroughly swept and watered, and everything sweet and clean.

PERIPHERAL NEURITIS AND CHRONIC RHEUMATISM.

THE evidence in support of the theory that rheumatism—or perhaps one ought rather to say rheumatoid arthritis—is dependent on nerve lesions has hitherto been for the most part clinical, and therefore more or less hypothetical. A communication made to the Société de Biologie on the 12th ult. by MM. Pitres and Vaillard may possibly advance the question a step further. They related the results (*Progrès Méd.*, No. 25) of the examination of two subjects who during life had presented the most typical signs of arthritis deformans, with considerable osseous lesions and trophic changes of the skin and nails. The nerves of the affected limbs were found to be in a most extreme degree atrophied, exhibiting the characters of parenchymatous neuritis. It was asked whether such changes are constant in chronic rheumatism, or are they due to some accidental localisation of the rheumatism, or are they partly the cause of the osseous, muscular, and cutaneous lesions? These questions were not discussed by MM. Pitres and Vaillard, and therein they showed a wise caution, for there is no proof at all why in such advanced cases any nerve changes that are met with may not be secondary to the chronic disablement of the motor apparatus.

FOREIGN MEDICAL APPOINTMENTS.

DR. E. KRAPELIN, chief physician for mental diseases in the Dresden Hospital, formerly a pupil of Dr. von Gudden, whose recent sad death in the faithful discharge of his duty is so well known, has been appointed Professor of Psychiatry and Director of the Clinic for Mental Diseases in Dorpat, succeeding Dr. Emminghaus. Dr. Rabb has been appointed Professor of Anatomy in the German Faculty of Prague. Dr. G. Runge, who was recently "called" from Dorpat to Basle, has just been appointed Professor of Medical Chemistry in Kieff. Dr. Morosoff of Kharkoff has been nominated Professor of Operative Surgery in Kieff.

HYDROPHOBIA.

IT will be necessary for M. Pasteur to give an account of all his cases, so that every criticism may be fully answered. Another death is reported of one of the patients on whom his preventive treatment had been fully carried through. The case was that of a girl named Lagut, aged eleven, who was bitten by a dog on April 27th. After some days illness she expired on June 17th. Report says that death was due to hydrophobia, but this would require investigation. Meanwhile M. Pasteur's system is being tested in New York by Dr. Mott and Dr. Sternberg, and a Pasteur Institute is about to be founded in Milan under the direction of Dr. Barattieri. The death of a labourer is reported from Plymouth as resulting from hydrophobia. A wound was inflicted on his thumb by a small terrier four weeks before the development of the fatal symptoms. The poor fellow's case is worth special mention, because of the profuse bleeding which accompanied the infliction of the wound. It is often asserted that free hæmorrhage prevents the absorption of the virus of rabies. Although a flowing away of fluid from the wounded part does somewhat diminish the chances of absorption, still it must be remembered that opening of bloodvessels likewise increases the chances of infection. Moreover, under such circumstances a more rapid development of the symptoms may be accounted for.

THE MAYO NATIVE HOSPITAL.

THE report of the transactions of the Mayo Native Hospital at Calcutta and its dependent dispensaries, for the year 1885 has just been published. This hospital, intended, as its name implies, for the treatment of the native poor, was founded in 1792, and receives a monthly donation from the Government of 1000 rupees, the only condition attaching to this gift being that the nomination of the members of the Committee of the hospital be subject to the approbation of the Governor-General in Council. The foundation-stone of the building occupied at the present time was laid by Lord Northbrook in 1873, and has been open for the treatment of patients since 1874. During 1885 the aggregate number of patients treated was 2564 in-door and 179,208 out-door. In 1884 these numbers were 2451 and 181,274 respectively. The total income, including a balance of 5760 rupees from the previous year, was 64,166 rupees, and the expenditure amounted to 58,900. The generous support which the Mayo Hospital has met with from the native population of Calcutta is an eloquent testimony of the appreciation in which it is held by those for whose benefit it was founded.

COCAINE AS A DIURETIC.

DRS. DA COSTA and PENROSE of Philadelphia have been investigating the diuretic action of cocaine, and they have obtained some striking results. In all the cases but one in which observations on the urine were made a notable increase in this secretion was observed. In one case the hypodermic injection of half a grain of cocaine once a day increased the amount of urine from 24 oz. to 48 oz., and in another case a grain given by mouth thrice daily increased the urine at once from 40 oz. to 96 oz. The specific gravity of the secretion was but slightly altered; thus in one case, in which the daily amount of urine was raised from 14 oz. to 88 oz. and 72 oz., the specific gravity varied from 1020 to 1023. Abundant deposits of urates were observed, but no special estimation of the solids of the urine was made. The diuretic action was found to persist for some short time after the discontinuance of the cocaine. The authors of this paper recommend the employment of cocaine in cases of weak heart with dropsy, and in uræmia with scanty secretion of urine.

ESERINE AND PILOCARPINE IN GLAUCOMA.

M. PANAS reports to the Paris Academy of Medicine that in certain classes of glaucoma which are not benefited by operation he has had considerable success by instilling eserine or pilocarpine, and he suggests that in all cases where operative procedures fail in arresting the increase of ocular tension these agents should be tried.

WHO IS RESPONSIBLE?

IT is now some years since THE LANCET undertook an inquiry into the case of the sick in metropolitan workhouses, and the circumstances which were by this means brought to light led to important alterations and improvements. A report from Dr. Bridges, the inspector of the Local Government Board, which was read last week at a meeting of the Strand Board of Guardians, criticising and condemning the arrangements at the Edmonton Workhouse, shows that perfection is not yet attained. The chief complaint made relates to the dispensing of medicines in the workhouse, which

appears to have been very largely in the hands of the nurses. A letter published in the *Standard* subsequently, from a member of the Strand Board, places the responsibility for much of the present condition of affairs upon the Local Government Board, who, he states, have neglected during six months to give their sanction to the appointment of a dispenser. That one or the other board is to blame is evident, but which?

TOXICITY OF URINE IN BRIGHT'S DISEASE.

WE have already informed our readers of M. Bouchard's researches on the toxicity of the normal urine, which promise to be of considerable value in practical medicine. M. Dieulafoy has determined that the toxicity of the urine in Bright's disease is less than in health. There are two modes in which the toxicity of the urine may be reduced. It has been clearly shown that increased oxidation possesses this power. Deficient elimination is another method, though it acts in an altogether opposite manner. In Bright's disease the poisonousness of the blood rises whilst that of the urine correspondingly diminishes. It has been suggested that in cases of Bright's disease without albuminuria this diminished toxicity of the urine might prove of service in diagnosing certain cases of unconsciousness due to uræmia. The co-efficient of toxicity is reckoned as that quantity of urinary poison required to kill a rabbit of definite weight. Thus it would be possible to make mathematical calculations.

POISON FOR A PENNY.

A FEW days ago Dr. Danford Thomas held an inquest on the body of a man, aged nineteen, who died from the effects of taking rat-poison. From the evidence it appeared that he had been out of work, and had led a homeless, wandering life for more than six months. A police-constable deposed that he came to the King's-cross Police Station and stated that he had taken a pennyworth of phosphorus paste. He was seen by the police divisional surgeon, who ordered his removal to the Royal Free Hospital, where he died after several days of intense suffering from syncope, the result of fatty degeneration of the heart and other organs. The resident medical officer stated that there was no difficulty in procuring phosphorus paste, and that *a fatal dose could be procured from any oilman for a penny.* Comment on this would be superfluous. The jury returned a verdict of "Suicide while of unsound mind," without appending any rider.

THE HOSPITAL SUNDAY FUND.

THE totals of the first four days' receipts up to Thursday evening amounted to £18,000, as compared with £14,000 at a similar period last year. Some large collections are paid this year for the first time since the establishment of the Fund.

THE QUEEN has been pleased to approve of the appointment to the Order of the Indian Empire of Mr. G. Watt, M.B., C.M. Glas., and J. W. Tyler, M.D., F.R.C.S. Ed., for services in connexion with the Colonial and Indian Exhibition.

DR. WENDELL HOLMES, in company with the Right Hon. John Bright and others, received the honorary degree of D.C.L. at the Sheldonian Theatre, Oxford, on Wednesday, in the presence of the Prince and Princess Christian.

SIR JAMES PAGET, Bart. was yesterday, by 57 votes out of 64, elected a Foreign Associate of the French Academy of Medicine. Dr. Charles West of London, and M. van Beneden, of Brussels, were the other candidates.

THE PRESENT ASPECT OF THE CHOLERA QUESTION.[1]

BY PROF. DR. MAX VON PETTENKOFER,
OF MUNICH.

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HENRY KOPLIK,
OF NEW YORK.

DR. VON PETTENKOFER, in the above work, discusses the transactions in the scientific world on the subject of cholera since the year 1883. He elaborates his views more from an epidemiological standpoint, as combined with the teachings of the vast advances in the subject of bacteriology at the present day. The work thus embraces a discussion of the two conferences in Berlin, the conference in London in 1885, the Sanitary Congress in Rome, June, 1885, and the Transactions of the Academy of Medicine, Paris, 1883-85. The author has divided his work according to the following schema:—I. The Autochthonists. II. Contagionists: (1) The infection of physicians and nurses through the sick; (2) Excrement of the sick as a seat of infectious matter; (3) House epidemics in hospitals and barracks; (4) Linen of cholera patients; (5) Cholera on ships; (6) Spread of cholera through intercourse on land; (7) Spread through drinking water. III. The Cholera Theories from a Bacteriological standpoint. IV. The Localists: (*a*) The influence of local disposition; (*b*) Influence of time. V. The Prophylactic Measures.

There are two main views at the present day concerning the nature of cholera. One that the disease, originally endemic in India, has been introduced into the different countries of Europe through the agency of a specific micro-organism transported thence through human intercourse (cholera Asiatica) Another view, that of the Autochthonists, is that cholera may be caused in other lands, as in India, by telluric and atmospheric conditions and special circumstances; appearing in isolated cases as cholera nostras, and at times becoming epidemic. The author proposes for the first the term of "Ephodist." (ἐφοδος—intercourse), and rejects as misleading the term "Contagionist."

The *Ephodists* hold that the specific micro-organism, the cause of cholera, is endemic in lower Bengal, where its history dates either since or previous to 1817. From here the germ is carried through human intercourse into different localities. It does not thrive outside its endemic locality, and the micro-organism must be introduced anew each time in order to cause an epidemic. The Ephodists are further divided into two schools: the Contagionists, who attribute to cholera patients the power of generating a specific infectious matter; and the Localists, who hold that cholera patients and their excretions are not infectious, but that only the local conditions existing at the time are capable of generating an epidemic by favouring the growth of the imported infectious matter.

The *Autochthonists*, as opposed to the Ephodist view, that cholera is spread through the agency of human intercourse and traffic, are headed by James Cunningham working in Calcutta, and Jules Guérin in Paris. Though both of these men stand almost alone in their theories at the present day, yet the facts collected by them remain as firm as ever. Cunningham especially, with his long and vast experience, commands attention. Working on the site of the disease, he has, by the introduction of practical prophylactic measures, been able to diminish the frequency of the disease in the barracks and prisons of India. These measures presuppose that the cholera patients produce nothing capable of making the healthy ill, nor do they recognise in any way the fundamental teachings of the Contagionists. Cunningham shows by large statistics that the frequency of cholera in India is less dependent on cases of cholera, which are always to be found in India, than upon the particular *locality* and *time*. The latter are much more diverse and changeable than the human economy, which for the Contagionists is at the same time the centre of manifestation and origin of the disease. Moreover he has shown that the

[1] Résumé from the German work (in the press), "Zum Gegenwärtigen Stand der Cholerafrage," by Prof. Dr. Max von Pettenkofer, of Munich.

spread of cholera outside its endemic localities does not present the picture of a gradual extension of disease from a central point, but rather that of isolated outbursts in a comparatively small number of inhabited cities and villages.

If in India the cholera spreads in an epidemic manner outside its endemic locality, it does so, not in the direction of intercourse and travel, but rather in a contrary direction. The system of drainage in the upper provinces, carrying the refuse of cholera patients, runs in a direction contrary to that of the spread of the epidemic. Railroads in recent times have also not influenced the direction taken by the disease, nor the rapidity of its extension or the frequency of the epidemic, as may be seen by comparing the statistics of to-day with those obtained before the construction of railroads. The same may be argued in the case of ships. If, against these facts of Cunningham, Koch argues that the frequency of cholera epidemics is greater in such districts as Penschab since the opening of railroad lines, we must conclude that in this particular instance the frequency is more apparent than real, inasmuch as, perhaps, the statistics are more accurate to-day than in former times. The author is thus disposed to fully agree with Cunningham in the above particulars. Jules Guérin, in maintaining that the influence of human intercourse is a factor of no moment in cholera epidemics, cites the fact that in Paris during the Exhibition of 1867 there were no cases of cholera, though the city was filled with thousands of strangers, some coming from the localities where the cholera was at the time in progress, and though the disease existed in many of the neighbouring countries. Netten Radcliffe showed that at this time the cholera existed in Tunis, with which France was in close relationship, and in the neighbouring Italian cities where it was at its height. In Paris there was no quarantine. Cholera existed also north of Paris, in Zurich, Dusseldorf, and the Rhinelands. The argument of Fauvel, the opponent of Guérin, that the inhabitants of Paris had acquired a certain immunity from the disease on account of a previous epidemic in 1865, can scarcely be considered tenable; many thousands of people lived in Paris in 1867 who were not subjected to the influences of the epidemic of 1865.

An important point brought forward by the Autochthonists is the wide separation of the first cases in the outbreaks of local epidemics. The cases are scattered without the slightest connexion with one another. In the cholera epidemics in Toulon and Marseilles in 1884, the author maintains that evidence points to the existence of cholera in Marseilles before the arrival of the student, to whom the spread of the disease in the latter place was attributed. Rather is it more plausible that the student from Toulon contracted his cholera through local conditions existing in Marseilles. The disease manifested itself, in his case, three days after his arrival there. [Besnier, in discussing the spread of cholera epidemic since 1832, denies that such spread was commensurate with the amount of intercourse with infected localities.]

The author at this stage of the work enters into the definition of infectious diseases. Under infectious disease are included those diseases caused by the entrance of a specific infectious matter into the body. Such specific infectious matter is found by the light of recent research to be micro-organisms, or products of the same. In England we have a classification of diseases into contagious (scarlet fever, measles) and infectious, the latter being subdivided into transmissible and non-transmissible. An infectious disease being here understood as a disease caused by infectious matter from the soil, water, or air, these diseases may be "transmissible" from place to place (cholera); others are "non-transmissible" (malaria, pure miasmatic.) In Germany we have the division into contagious, miasmatic, and contagious-miasmatic. These terms, contagious, miasmatic, and infectious are, on the whole, very misleading in the light of recent bacteriological research and from an epidemiological standpoint. The author would propose that under the specific term "Infectious matter" (*Infectionstoffe*) we include in the future the words "contagium" and "miasm." This infectious matter may be distinguished as entogen or ektogen, according to whether the infectious matter passes directly from the sick to the healthy, or the bacterium capable of infection, or its products, develops in the surroundings of the infected person before passing into the economy (ektogen). Inasmuch as some organisms can develop after both fashions, Stricker has proposed a third term—amphigen—to supplement the above. Returning to the fact asserted by Autochthonists (Guérin), that at the beginning of epidemics we have to deal with isolated cases which have no connexion with each other, the author has found that in the case of the three epidemics in Munich in 1836-37, 1854, and 1873, the exact mode of introduction of the germ could not be established. In these three epidemics, however, the cases were found always in particular streets of the city—speaking more for the Autochthonists than for the Contagionists. Moreover, the railroads of the city lay in an opposite direction to the localities where the epidemics began. The author, however, does not at all accept the Autochthonist doctrines, for the following reasons:—

The Autochthonists (Cunningham, Guérin) do not recognise that modern bacteriology has proven that all infectious diseases are caused by a specific micro-organism (tuberculosis, milzbrand, &c.) We must accept the view that the cholera bacterium is an "ens sui generis" which now exists in the world and can be spread from place to place. It may have originally developed under favourable conditions from a non-pathogenic micro-organism in a way similar to what we find to be the case in the history of the plant world. While Macpherson thinks that cholera has been endemic in India from the earliest times, Koch and Semmelink think that cholera first appeared in India in 1817. At whatever time it originated, at least from 1817, the germ could be conveyed from its place of origin and by human intercourse spread over Europe. The questions, however, arise—(*a*) Does it thrive in the new localities to which it is brought, and if so how long? (*b*) Does the germ, as in India, become perennial in its new home, or does it after a time die out, and must it be brought in anew? The Autochthonists can eliminate the question of human intercourse by supposing that the cholera germ can develop in other places as in India (autochthon), but being subject to other conditions it causes epidemics with less regularity and with longer intervals. Besnier, in the case of Paris, has supposed a certain space of latency to exist during which the germ develops. The periods between the outbursts of cholera can be of different duration, and a fresh introduction of the germ from without is not necessary. The author thinks that from his own studies of the epidemics in such places as Malta and Gozo islands the cholera germ does not in its new home become perennial, but dies out, and must be brought by human intercourse anew into the locality in order to develop and cause an epidemic. The Ephodists, both localists and contagionists, admit the influence of human intercourse in spreading cholera. It can never be proven that a locality recently attacked with cholera has had no communication with a place where cholera is existing; and, moreover, where cholera patients have come to large cities and died, there have always been a number of pendant cases to those original ones where the subsequent investigation showed the case succeeding the first to have been in personal close relation with the sick. These facts must lead to a complete rejection of the autochthon theory. It must be admitted that there is something adhering to persons coming from localities where cholera exists which is capable of spreading the disease in a new spot.

(To be continued.)

Pharmacology and Therapeutics.

LANOLINE.

WE have received two specimens of lanoline—one which contains 20 per cent. of water, and one quite free from water. The profession is indebted to Dr. Oscar Liebreich for this new basis for ointments. Although vaseline has met with great favour, two objections have been urged against it. On the one hand, it is said to be an irritant to some skins; and it is further alleged that it has but slight power of penetration, so that active ingredients of vaseline ointments are not readily absorbed. From the experiments of Dr. Liebreich, it appears that lanoline possesses great powers of penetration, and that when employed as the vehicle of active drugs they are absorbed from the skin with great readiness; and it promises, therefore, to be extremely useful in all cases where alkaloids are used in the form of ointments. Lanoline is a cholesterine fat—the natural fat of

the skin; it is neutral in reaction, and decomposes with great difficulty. It is improved by the addition of from 5 to 10 per cent. of fat or glycerine.

HYDRASTIS CANADENSIS.

The current number of the *Therapeutic Gazette* contains an able article on the Physiological Action and Therapeutic Uses of Hydrastis Canadensis. To Schatz is due the credit of having first introduced it into gynæcological practice, whilst Fellner was the first to subject it to a thorough physiological examination. From experiments recently published it would appear that its action varies according to the mode of administration. Fellner finds that large doses administered to dogs under the influence of curare induce lowering of the blood-pressure and slowing of the pulse, followed by rise of pressure and quickening of the pulse with irregularity of the heart's action. Medium doses produce similar phenomena, but the blood-pressure rises more in the first stage and falls less at the end of the second. Small doses increase the general blood-pressure, whilst subcutaneous injections and enemata, even in large doses, act similarly to small doses injected into the veins. It is probable that hydrastis exerts its effects chiefly on the vaso-motor nerve centres, but it is also a direct heart poison. Practically, it is found to be useful in many catarrhal conditions and in certain forms of gastric and uterine disturbance.

SALOL.

This new compound, introduced by Nencky, is a derivative of salicylic acid, one atom of hydrogen of which has been replaced by the phenol group (*Pharmaceutical Journal*). Possessing antipyretic and antiseptic properties, it is hoped that it may prove of service in cases in which the salicylate of soda is badly borne. Its physical characters are those of a white powder of faintly aromatic odour, almost insoluble in water, and perfectly tasteless. In the organism the compound becomes split up into the salicyl and phenol elements; both may be detected in the urine, which becomes very dark, as happens after the ingestion of carbolic acid, of which salol contains 38 per cent. The spliting of the compound is believed to take place in the duodenum, under the influence of the pancreatic digestion. It is remarkable that no toxic symptoms appear to have resulted from the employment of salol.

CONDURANGO IN GASTRIC DISEASES.

Dr. Enrique Súñer writes to *El Genio Medico* that, having recently employed Condurango bark in the treatment of several cases of gastric carcinoma and catarrh, he has found it very beneficial. He gives a tablespoonful of the infusion every two hours, and in all cases the pain was decidedly mitigated and the appetite and digestion improved. In most cases of mere gastric catarrh the painful nausea and vomiting ceased, and subsequently the patients recovered from the mental depression which was due to the acute gastric disturbance. In the malignant cases, of course, nothing could be hoped for but alleviation of pain, and some improvement in the ability to take and retain nourishment.

PHOSPHORUS IN INTERMITTENT FEVER.

A Russian provincial practitioner, Dr. Sochinski, states that during a rural practice of five years he has found phosphorus a valuable remedy in intermittent fever. He prescribes the oleum phosphoratum in the form of emulsion, a drachm in six ounces, of which a tablespoonful is given three times a day. This, he says, never produces unpleasant effects, and is in his experience superior to tincture of iodine, tincture of eucalyptus, and even to arsenic, cinchonine, and resorcine, though scarcely equal to quinine or carbolic acid and corrosive sublimate. It is, however, a simple and a very convenient remedy for out-patients in dispensary or parochial practice.

ETHOXYCAFFEINE.

This body is caffeine in which one atom of hydrogen is replaced by the group C_2H_5O. Alkalies precipitate its salts from their solutions. Hypodermic injections in rabbits gave indications of a narcotic action. M. Dujardin-Beaumetz has administered this agent in cases of severe headache, and with beneficial results. Its insolubility is an objection, as is also its tendency, with other allied bodies, to cause gastric symptoms. Most of these difficulties are overcome by dissolving the drug in salicylate of soda and adding some carminatives. The largest dose given was twenty-five centigrammes. Guarana and Paullinia owe their value in megrim to their containing caffeine.

SALICYLATE OF BISMUTH.

Bismuth in the form of carbonate or trisnitrate is one of the few valuable remedies we possess. Dr. Solger now claims for the basic salicylate of this metal a special value in cases of diarrhœa and chronic intestinal catarrh. He administers about twenty grains every eight hours, and attributes its beneficial action mainly to its disinfectant properties. In some invalids, malaise, furred tongue, and abdominal pains are said to be caused by the drug, though a small dose of castor oil readily removes the toxic effects without requiring its discontinuance.

URETHAN.

M. Coze has investigated the physiological action of urethan on frogs, guinea-pigs, rabbits, and dogs. He finds that it is antagonistic in its action to strychnia. It causes muscular relaxation and induces sleep; slows the pulse and the respiration, whilst lowering the temperature. As it has no irritant local action, it can be conveniently used for hypodermic injection; it does not disturb the secretions or the nutrition; its use in convulsions and in tetanus is recommended.

IODOFORM IN ERYSIPELAS.

Dr. A. J. Selitski mentions in a Russian military medical journal the satisfactory results he has obtained by treating erysipelas, whether idiopathic or traumatic, by means of an iodoform ointment of the strength of from 1 to 8 or 1 to 10. The effect of this application was seen in the reduction of the swelling, the relief of the pain, the diminution of the intensity of the erythema, and the reduction of the high temperature.

PARTHENINE.

According to M. Guyet, parthenine is not a simple substance, but of complex nature, like scillitine and the amorphous digitalines. It does not appear to have any antipyretic action, but seems to be useful in some cases of neuralgia.

PILIGANINE.

M. Adrian has discovered a new alkaloid in Lycopodium Saussures. It has an alkaline reaction, and emits white vapours, like ammonia, in the presence of hydrochloric acid. It causes powerful emesis and catharsis.

UNIVERSITY OF LONDON.

A MEETING of Convocation of the University of London was held on June 29th, Dr. F. J. Wood, Chairman of Convocation, presiding.

The nomination of a list of three graduates, "to be submitted to Her Majesty for the selection therefrom of a Fellow of the University" was proceeded with, the scrutineers eventually reporting that Dr. Wilks had received 428 votes, Mr. Magnus 379, and Professor Thistleton Dyer 187; whilst 114 voting papers were cancelled for non-compliance with the regulations.

A motion respecting the celebration of the jubilee of the University, standing in the name of Mr. Whitehead, was withdrawn; and in its place a resolution proposed by Mr. Howse was carried, referring the question to the Annual Committee, with power to confer with the Senate upon it.

Mr. Newson's Special Committee of seven members to consider the regulations for the Law Examinations was approved, the members nominated being James Anstie, B.A., Q.C.; J. B. Benson, LL.D., B.A.; E. H. Busk, M.A., LL.B.; B. Kisch, M.A., B. Sc.,; T. L. Mears, LL.D., M.A.; T. B. Napier, LL.D.; F. A. Philbrick, B.A., Q.C.

A motion by Mr. MAGNUS to pass to the business of the extraordinary meeting—namely, the resumption of the adjourned debate upon the scheme on the constitution of the University, was resisted by Mr. Tyler, whose resolutions upon the same subject stood next upon the agenda. On a division, there voted for the motion 44, against 16.

Mr. MAGNUS therefore moved, and Mr. ANSTIE seconded the following resolution, recommended on page 6 of the Report of the Special Committee:—(C.) "That Convocation approves of the proposals for the constitution of the Senate of the University contained in Section 2 of the subjoined scheme." This section runs as follows:—The Senate to consist of—(*a*) Chancellor, to be appointed by the Crown.

(*b*) Vice-Chancellor, to be elected by the Senate annually from amongst its members. (*c*) The following members *ex-officio*: Chairman of Convocation, Chairman of Council of Education, Chairman of each of the four Boards of Studies. (*d*) Ordinary members, to be appointed as follows: Six by the Crown, eight by Convocation, four by the Council of Education, and one by each of the seven following institutions: University College, King's College, Royal Society, Royal College of Physicians of London, Royal College of Surgeons of England, Council of Legal Education and Council of Incorporated Law Society. The ordinary members to hold office for a period of four years, and to be re-eligible. The Senators elected by Convocation to be elected by members of Convocation voting in their respective Faculties. Two members to be elected by the members of each of the four Faculties. The Senate to have the control and management of the University.

Mr. ROUND contended that this scheme would give a preponderating influence to teachers, and would alter the character of the University. He moved the omission of University College, King's College, and the two Legal Councils; and also to provide that only two out of the eight representatives of Convocation should be teachers.

Mr. LYNN seconded the amendment, and characterised the scheme as a proposal to tear the University up by the roots, and as infallibly tending to lower the value of the degrees. The University might develop in many directions, such as founding laboratories, observatories, &c., without constituting itself another teaching body, but remaining the highest possible examining board.

Dr. SERRELL, LL.D., pointed out that the representation of Convocation on the Senate was not sufficient, and he did not see the need for inviting other bodies to share privileges at present restricted to the Crown and Convocation.

Mr. TYLER said the scheme would create a new university which would be swamped by teachers. He did not see that the Colleges of Physicians and Surgeons had any claim to be represented on the Senate, and contended that University College was already well represented, whilst King's College sends so few graduates as not to constitute a claim. He also objected to the Royal Society and other bodies sending senators, and believed the best plan would be to maintain the existing Senate with greater proportionate members elected by Convocation.

Mr. MACDOWALL defended the scheme, and pointed out that neither the Royal Society nor the Colleges of Physicians and Surgeons would be likely to send men engaged in teaching to the Senate.

Mr. NESBITT thought that power would be given into the hands of teachers, and the University would lapse into the state of the Scotch universities. He denounced the proposals as revolutionary and opposed to the traditions of the University, whilst they would certainly entail a lowering of degrees. He objected to the four years' tenure of office, and advocated life tenure, as at present; and he also objected to the representatives of Convocation being elected by each faculty, and not by the whole body.

Dr. T. B. NAPIER, LL.D., said there was no direct representative of the teaching bodies except in the case of the two colleges. The Council of Education consisted largely of the examiners of the University, and but one-third of it would be teachers. Altogether, he did not think the Senate would have more than five of its members directly representing the teaching element.

Mr. NEWSON opposed the scheme on the ground that Convocation had so small a representation, and he totally objected to the paragraph giving all the control and management of the University to the Senate.

Mr. ANSTIE, Q.C., defended the scheme. Convocation would be largely represented on the Council of Education, both directly and through the examiners, most of whom are members of the University. It was needful for the University to be fully informed of the views of teachers, and care could be taken that the interests of teachers did not get the better of their judgment. He ridiculed the notion that the inclusion of representatives from the Royal Society and the two great London colleges would tend to lower the value of degrees, and trusted that Convocation would not be actuated by such small motives and jealousies as had been expressed. He pointed out that the constituent colleges would comprise many institutions, and that the scheme would remove the complaints that provincial colleges were disregarded. The section was vital to the scheme, and the introduction of these bodies on the Senate was of the highest consequence to the University.

Mr. HINTON thought provision should be made for replacing any of these bodies, if necessary, by others, and Mr. COTTON opposed the scheme.

On a show of hands, a large majority voted against the amendment; but a division being called for, there voted for the amendment 1, against 42.

On the original resolution being put, Mr. NEWSON moved the omission of the words, "The Senate to have the control and management of the University." This was seconded by Mr. UPJOHN, supported by Mr. TYLER, but rejected by a large majority.

Mr. HINTON moved the omission of the clause providing for election by the Faculties, but this was not seconded; and a similar motion by Mr. NESBITT was lost.

The original resolution was then put and carried by a large majority.

Mr. MAGNUS then moved the adoption of the following resolution, recommended on page 8 of the Report of the Special Committee—(D) "That Convocation approves of the proposals contained in Section 6 of the subjoined scheme for enabling the University to assist in the promotion of higher university education." He said that the University should now undertake other functions than mere examining, and do something to encourage learning for its own sake. He had no doubt that it would obtain funds, for it was absolutely necessary to be freed from State control, and they had a right to ask for a permanent State endowment. With the sole exception of the Normal School of Science—which is devoted to the training of certificated Government teachers—London receives no aid from the State for teaching purposes. He believed that if the University were placed on a different basis, there would be no lack of donations and bequests, which would render the University an educational power of which the country would be proud, and one worthy of the metropolis.

Mr. ANSTIE seconded the resolution.

Mr. TYLER pointed out that the University already administered the Brown bequest. He also objected to the proposal to grant honorary degrees. Some discussion arose upon this latter point, and eventually an amendment striking out the clause referring to honorary degrees was carried.

Dr. FOSTER MORLEY thought, in fairness to the University and King's Colleges, who on the foundation of the University surrendered their powers to grant degrees, that these bodies should be consulted before the University took on teaching function. But his amendment to that effect was not seconded, and the resolution was carried.

The final resolution, (E) "That the Report and Scheme be adopted as a basis of conference with the Senate, and that the Special Committee be reappointed with power to confer with the Senate thereon," was then moved by Mr. Magnus, seconded by Mr. Anstie, and carried, Mr. Tyler protesting that the scheme would be disastrous to the University.

The House then adjourned after a sitting which had occupied three hours and a half, and Mr. Magnus received many congratulations upon the manner in which he had successfully carried the scheme of his committee, involving as it does such radical changes in the constitution and functions of the University.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary Comitia of the Fellows of the College was held on Tuesday last, at 5 P.M., the President, Sir William Jenner, Bart., K.C.B., in the chair. A licence was granted to Mr. John Ernest Trask. A communication was read from the Royal College of Surgeons, stating that the Council had appointed delegates to confer with those nominated by the College of Physicians in reference to the future use of the vacant plot on the Embankment after the erection of the Examination Hall.

The next business on the agenda was the further consideration of the report of the Croonian Trust Committee, which had been discussed and postponed at two previous meetings. The adoption of the report by which the increased income of the Trust would be devoted to the promotion of "anatomy, physiology, and pathology, in their bearing on therapeutic science, with a view to the more

efficient prevention, control, and cure of disease," was moved by Sir Risdon Bennett, and seconded by Dr. Balfour.

Dr. Dickinson moved, and Dr. Wilks seconded, the amendment standing in Dr. Bristowe's name—viz.: "That there be three Croonian Lectureships: one of these to be simply the continuation of the present Croonian Lectureship, to be generally held by a Fellow of some years' standing, who shall be called, as heretofore, 'The Croonian Lecturer'; the other two to be devoted specially to the promotion of original research. That one of the two Research Lectureships be devoted to the investigation and discussion of subjects connected with the anatomy and physiology of disease, and that the lecturer be styled 'The Croonian Professor of Pathology.' That the other of the two Research Lectureships be devoted to the investigation and discussion of subjects connected with clinical medicine and the treatment of disease, and that the holder be termed 'The Croonian Professor of Clinical Medicine and Therapeutics.' That each of the Research Lectureships be tenable for one, two, or three years, at the discretion of the President; and that the number of lectures to be delivered annually in each case be not less than three or more than six." This was lost on a division.

Dr. Quain then moved, and Dr. Wilson Fox seconded, another amendment: "That there shall be one or more Croonian Lecturers appointed by the College, who shall be required to deliver lectures on one or more subjects in anatomy, physiology, and pathology, with a view to the prevention, control, and cure of diseases. That the College shall devote the funds derived from the Croonian Trust (1) to the payment of such lecturer or lecturers, and (2) to the contribution of such sums as the College may think fit towards the promotion of scientific investigation on the subjects of the lectures." This was passed by a large majority.

A further amendment to change the words "with a view to the" for "with the special object of the more efficient" was lost, and the insertion of the word "chemistry" was also objected to, inasmuch as it might entail some legal difficulty in passing the scheme through the Court of Chancery.

Dr. West's proposal to alter Bye-law 69, affecting the powers of the Council, was rejected by a large majority.

The Registrar then moved: "That it be referred to the Committee of Management to consider what staff should be appointed, and under what conditions, for the efficient management and conduct of the business of the Examination Hall, and to report to the two Colleges," which was carried, and the proceedings terminated.

A BILL TO AMEND THE MEDICAL ACTS.

BE it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

I. *Short title and construction.*—This Act may be cited as the Medical Act, 1886, and shall be construed as one with the Medical Acts.

PART I.—ADMISSION TO MEDICAL PRACTICE AND CONSTITUTION OF GENERAL COUNCIL.

Qualifying Examinations.

II. *Examination before registration.*—On and after the appointed day a person shall not be registered under the Medical Acts in respect of any qualification referred to in any of those Acts, unless he has passed such qualifying examination in medicine, surgery, and midwifery, as in this Act mentioned.

III. *Qualifying examinations held by medical authorities.*—(1) A qualifying examination shall be an examination in medicine, surgery, and midwifery held, for the purpose of granting a diploma or diplomas conferring the right of registration under the Medical Acts, by any of the following bodies—that is to say:—(*a*) Any university in the United Kingdom, or any medical corporation legally qualified at the passing of this Act to grant such diploma or diplomas in respect of medicine and surgery; or (*b*) any combination of two or more medical corporations in the same part of the United Kingdom who may agree to hold a joint examination in medicine, surgery, and midwifery, and of whom one at least is capable of granting such diploma as aforesaid, in respect of medicine, and one at least is capable of granting such diploma in respect of surgery; or (*c*) any combination of any such university as aforesaid with any other such university or universities, or of any such university or universities with a medical corporation or corporations, the bodies forming such combination being in the same part of the United Kingdom.—(2) The standard of proficiency required from candidates at the said qualifying examinations shall be such as sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery; and it shall be the duty of the General Council to secure the maintenance of such standard of proficiency as aforesaid; and for that purpose such number of inspectors as may be determined by the General Council shall be appointed by the General Council, and shall attend, as the General Council may direct, at all or any of the qualifying examinations held by any of the bodies aforesaid.—(3) Inspectors of examinations appointed under this section shall not interfere with the conduct of any examination, but it shall be their duty to report to the General Council their opinion as to the sufficiency or insufficiency of every examination which they attend, and any other matters in relation to such examination which the General Council may require them to report; and the General Council shall forward a copy of every such report to the body or to each of the bodies which held the examination in respect of which the said report was made, and shall also forward a copy of such report, together with any observations thereon made by the said body or bodies, to the Privy Council.—(4) An inspector of examinations appointed under this section shall receive such remuneration, to be paid as part of the expenses of the General Council, as the General Council, with the sanction of the Privy Council, may determine.

IV. *Withdrawal from medical authorities of right to hold qualifying examinations.*—(1) If at any time it appears to the General Council that the standard of proficiency in medicine, surgery, and midwifery, or in any of those subjects or any branch thereof, required from candidates at the qualifying examinations held by any of the bodies for the time being holding such examinations is insufficient, the General Council shall make a representation to that effect to the Privy Council, and the Privy Council, if they think fit, after considering such representation, and also any objections thereto made by any body or bodies to which such representation relates, may by order declare that the examinations of any such body or bodies shall not be deemed to be qualifying examinations for the purpose of registration under the Medical Acts; and Her Majesty, with the advice of her Privy Council, if upon further representation from the General Council, or from any body or bodies to which such order relates, it seems to her expedient so to do, shall have power at any time to revoke any such order.—(2) During the continuance of any such order the examinations held by the body or bodies to which it relates shall not be deemed qualifying examinations under this Act, and any diploma granted to persons on passing such examinations shall not entitle such persons to be registered under the Medical Acts, and any such body shall not choose either separately or collectively with any other body a member of the General Council; and the member (if any) for the time being representing such body in the General Council shall, unless he was chosen by such body collectively with any other body not subject to an order under this section, be suspended from taking part in the proceedings of the General Council.

V. *Qualifying examinations held by medical corporation, with assistant examiners.*—(1) If a medical corporation represents to the General Council that it is unable to enter into such combination as is in this Act mentioned for the purpose of holding qualifying examinations, and the General Council is satisfied that the said medical corporation has used its best endeavours to enter into such combination as aforesaid, and is unable to do so on reasonable terms, it shall be lawful for the General Council, from time to time, if they think fit, on the application of such corporation, to appoint any number of examiners to assist at the examinations which are held by such corporation for the purpose of granting any diploma or diplomas conferring on the holders thereof, if they have passed a qualifying examination, the right of registration under the Medical Acts.—(2) It shall be the duty of the said assistant examiners to secure at the said examinations the maintenance of such standard of proficiency in medicine, surgery, and midwifery as is required under the foregoing provisions of this Act from candidates at qualifying examinations, and for that purpose the said assistant examiners shall have such powers and perform such duties in the conduct of those examinations as the General Council may from time to time by order prescribe; and any examination held subject to the provisions of this section shall be deemed to be a qualifying examination within the meaning of this Act.—(3) Assistant examiners appointed under this section shall receive such remuneration, to be paid by the medical corporation at whose examinations they take part, as the General Council determine.—(4) A medical corporation shall have power to admit to its examinations assistant examiners appointed under this section, and to conduct its examinations in accordance with the requirements of this section and of any orders made thereunder, anything in any Act or charter relating to such corporation to the contrary notwithstanding.

Effect of Registration.

VI. *Privileges of registered persons.*—On and after the appointed day a registered medical practitioner shall, save as in this Act mentioned, be entitled to practise medicine, surgery, and midwifery in the United Kingdom, and (subject to any local law) in any other part of Her Majesty's dominions, and to recover in due course of law in respect of such practice any expenses, charges in respect of medicaments or other appliances, or any fees to which he may be entitled, unless he is a fellow of a college of physicians, the fellows of which are prohibited by bye-law from recovering at law their expenses, charges, or fees, in which case such prohibitory bye-law, so long as it is in force, may be pleaded in bar of any legal proceeding instituted by such fellow for the recovery of expenses, charges, or fees.

Constitution of General Council.

VII. *Members of General Council.*—(1) After the passing of this Act the General Council shall consist of the following members—that is to say:—Five persons nominated from time to time by Her Majesty, with the advice of her Privy Council, three of whom shall be nominated for England, one for Scotland, and one for Ireland. One person chosen from time to time by each of the following bodies:—The Royal College of Physicians of London, the Royal College of Surgeons of England, the Apothecaries Society of London, the University of Oxford, the University of Cambridge, the University of London, the University of Durham, the Victoria University, Manchester, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the University of Edinburgh, the University of Glasgow, the University of Aberdeen, the University of St. Andrews, the King and Queen's College of Physicians in Ireland, the Royal College of Surgeons in Ireland, the Apothecaries Hall of Ireland, the University of Dublin, the Royal University of Ireland; three persons elected from time to time by the registered medical practitioners resident in England; one person elected from time to time by the registered medical practitioners resident in Scotland; one person elected from time to time by the registered medical practitioners resident

in Ireland.—(2) The provisions of this section relating to the representation of the Universities of Edinburgh and Aberdeen shall take effect on the occurrence of the first vacancy in the office of the person representing those universities at the time of the passing of this Act, and the provisions of this section relating to the representation of the Universities of Glasgow and St. Andrews shall take effect on the occurrence of the first vacancy in the office of the person representing such last-mentioned universities at the time of the passing of this Act; but nothing in this section shall affect the duration of the term of office of any person who at the time of the passing of this Act is a member of the General Council.

VIII. *Regulations as to election of representatives of the medical profession.*—(1) The members of the General Council representing the registered medical practitioners resident in the several parts of the United Kingdom (in this section referred to as "direct representatives") shall themselves be registered medical practitioners; they shall be elected to hold office for the term of five years, and shall be capable of re-election, and any of them may at any time resign his office by letter addressed to the President of the General Council, and upon the death or resignation of any one of them, some other person shall be elected in his place; but the proceedings of the General Council shall not be questioned on account of a vacancy or vacancies among the direct representatives.—(2) Each direct representative shall be a member of the branch council for the part of the United Kingdom in which he is elected; he shall also be entitled to fees for attendance and travelling expenses to the same extent as other members of the General Council are entitled to the same.—(3) The President of the General Council, or any other person whom the General Council may from time to time appoint, shall be the returning officer for the purpose of elections of direct representatives, and such returning officer shall, some time not less than six weeks nor more than two months before the day on which the term of office of any such representative will expire, and as soon as conveniently may be after the occurrence of any vacancy arising from the death or resignation of any such representative, issue his precept to the branch council for that part of the United Kingdom in which such representative was elected, requiring the said branch council to cause a representative to be elected by the registered medical practitioners resident in that part of the United Kingdom within twenty-one days after the receipt of the precept of the returning officer.—(4) The election shall be conducted in such manner as may be provided by regulations to be made by the Privy Council, provided as follows: (*a*) The nomination shall be in writing, and the nomination paper of each candidate shall be signed by not fewer than twelve registered medical practitioners; and (*b*) the election shall be conducted by voting papers, and it shall be the duty of the branch council in any part of the United Kingdom in which an election is to be held to cause a voting paper to be forwarded by post to each registered medical practitioner resident in that part at his registered address, but the election shall not be rendered void by reason of the omission of the branch council to cause such voting paper to be forwarded in any particular case or cases, and any registered medical practitioner to whom a voting paper has not been sent in pursuance of this Act may on application to the registrar of the said branch council obtain one from him; and (*c*) any registered medical practitioner entitled to vote at such election may vote for as many candidates as there are representatives to be elected.—(5) Each branch council shall certify to the returning officer the person or persons elected by the registered medical practitioners resident in the part of the United Kingdom to which such branch council belongs.—(6) A direct representative elected in the place of any such representative retiring on the expiration of the period for which he was elected shall come into office at the expiration of that period, and a direct representative elected to fill a vacancy caused by the death or resignation of any such representative shall come into office on the day on which he is certified by the branch council to the returning officer to have been elected.—(7) The expenses attending the election of a direct representative shall be defrayed as part of the expenses of the branch council for that part of the United Kingdom in which such representative is elected.—(8) For the purpose of the first election of direct representatives the returning officer shall, in the course of such period of seven days (ending not later than the fifteenth day of November next succeeding the passing of this Act) as the Privy Council may appoint, issue his precept to the branch council in each part of the United Kingdom, requiring such branch council to cause the proper number of representatives to be elected in the part of the United Kingdom to which such branch council belongs, within twenty one days after the receipt of the said precept; and the said representatives shall come into office on the first day of January, one thousand eight hundred and eighty-seven.

IX. *Election of President of General Council.*—The General Council from time to time on the occurrence of a vacancy in the office of president of the General Council shall elect one of their number to be president for a term not exceeding five years, and not extending beyond the expiration of the term for which he has been made a member of the said Council, but nothing in this Act shall affect the duration of the term of office of the person who at the time of the passing of this Act is president of the General Council.

Revision of constitution of General Council.—(1) The General Council may at any time represent to the Privy Council all or any of the following matters: (*a*) That it is expedient to confer on any university or other body in the United Kingdom capable of granting a medical diploma, not being one of the constituent bodies for the time being of the General Council, and being in the opinion of the General Council of sufficient importance to be worthy of such a privilege, the power of returning a member to the General Council, either separately or collectively with any other body or bodies in the same part of the United Kingdom capable of granting a medical diploma; (*b*) that it is expedient to confer on any constituent body, for the time being returning a member to the General Council collectively with any other body or bodies, and being in the opinion of the General Council of sufficient importance to be worthy of such a privilege, the power of returning a member to such council separately; (*c*) that it is expedient to confer on the registered medical practitioners resident in any part of the United Kingdom the power of returning an additional member to the General Council; (*d*) that it is expedient that any constituent body, having in the opinion of the General Council so diminished in importance as not to be entitled to such privilege, should either be wholly deprived of the power of returning a member to the General Council, or be deprived of the power of returning a member separately, and permitted to return a member collectively with some other body or bodies.—(2) The Privy Council, before considering such representation, shall cause the same to be laid before both Houses of Parliament.—(3) If either House of Parliament within forty days (exclusive of any period of adjournment for more than one week) next after any such representation has been laid before such House present an address to Her Majesty declaring that such representation or any part thereof ought not to be carried into effect, no further proceedings shall be taken in respect of the representation in regard to which such address has been presented, but if no such address is presented by either House of Parliament within such forty days as aforesaid the Privy Council may, if they think fit, report to Her Majesty that it is expedient to give effect to such representation, and it shall be lawful for Her Majesty, by Order in Council, to give effect to the same, and any Order in Council so made shall be of the same validity as if it had been enacted in this Act.

PART II.—COLONIAL AND FOREIGN PRACTITIONERS.

XI. *Registration of colonial practitioner with recognised diploma.*—On and after the prescribed day where a person shows to the satisfaction of the registrar of the General Council that he holds some recognised colonial medical diploma or diplomas (as hereinafter defined) granted to him in a British possession to which this Act applies, and that he is of good character, and that he is by law entitled to practise medicine, surgery, and midwifery in such British possession, he shall, on application to the said registrar, and on payment of such fee not exceeding five pounds, as the General Council may from time to time determine, be entitled, without examination in the United Kingdom, to be registered as a colonial practitioner in the Medical Register; provided that he proves to the satisfaction of the registrar any of the following circumstances:—(1) That the said diploma or diplomas was or were granted to him at a time when he was not domiciled in the United Kingdom, or in the course of a period of not less than five years during the whole of which he resided out of the United Kingdom; or (2) that he was practising medicine or surgery or a branch of medicine or surgery in the United Kingdom on the said prescribed day, and that he has continuously practised the same either in the United Kingdom or elsewhere for a period of not less than ten years immediately preceding the said prescribed day.

XII. *Registration of foreign practitioner with recognised diploma.*—On and after the said prescribed day where a person shows to the satisfaction of the registrar of the General Council that he holds some recognised foreign medical diploma or diplomas (as hereinafter defined) granted in a foreign country to which this Act applies, and that he is of good character, and that he is by law entitled to practise medicine, surgery, and midwifery in such foreign country, he shall, on application to the said registrar, and on payment of such fee not exceeding five pounds, as the General Council may from time to time determine, be entitled, without examination in the United Kingdom, to be registered as a foreign practitioner in the Medical Register; provided that he proves to the satisfaction of the registrar any of the following circumstances:—(1) That he is not a British subject; or (2) that, being a British subject, the said diploma or diplomas was or were granted to him at a time when he was not domiciled in the United Kingdom, or in the course of a period of not less than five years during the whole of which he resided out of the United Kingdom; or (3) that, being a British subject, he was practising medicine or surgery, or a branch of medicine or surgery, in the United Kingdom on the said prescribed day, and that he has continuously practised the same in the United Kingdom or elsewhere for a period of not less than ten years immediately preceding the said prescribed day.

XIII. *Medical diploma of colonial and foreign practitioner when deemed to be recognised.*—(1) The medical diploma or diplomas granted in a British possession or foreign country to which this Act applies, which is or are to be deemed such recognised colonial or foreign medical diploma or diplomas as is or are required for the purposes of this Act, shall be such medical diploma or diplomas as may be recognised for the time being by the General Council as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery. (2) Where the General Council have refused to recognise as aforesaid any colonial or foreign medical diploma, the Privy Council, on application being made to them, may, if they think fit, after considering such application, and after communication with the General Council, order the General Council to recognise the said diploma, and such order shall be duly obeyed. (3) If a person is refused registration as a colonial or foreign practitioner on any other ground than that the medical diploma or diplomas held by such person is or are not such recognised medical diploma or diplomas as above defined, the registrar of the General Council shall, if required, state in writing the reason for such refusal, and the person so refused registration may appeal to the Privy Council, and the Privy Council, after communication with the General Council, may dismiss the appeal, or may order the General Council to enter the name of the appellant on the Register. (4) A person may, if so entitled under this Act, be registered both as a colonial and a foreign practitioner.

XIV. *Separate list of colonial and foreign practitioners in Medical Register.*—The Medical Register shall contain a separate list of the names and addresses of the colonial practitioners, and also a separate list of the names and addresses of the foreign practitioners registered under this Act; each list shall be made out alphabetically according to the surnames; and the provisions of the Medical Act, 1858, relating to persons registered under that Act, and relating to the Medical Register and to offences in respect thereof, shall, so far as may be, apply in the case of colonial and foreign practitioners registered under this Act and of the said lists of those practitioners, in the same way as such provisions apply in the case of persons registered under the said Medical Act, 1858, and of the Register as kept under that Act.

XV. *Medical titles of colonial and foreign practitioners.*—On and after the appointed day it shall be lawful for any registered medical practitioner who, being on the list of colonial or of foreign practitioners, is on that day in possession of or thereafter obtains any recognised colonial or foreign medical diploma granted in a British possession or foreign country to which this Act applies to cause a description of such diploma to be added to his name in the Medical Register.

XVI. *Registration of foreign degrees held by registered medical practitioners.*—On and after the appointed day it shall be lawful for any registered medical practitioner who, being on the Medical Register by virtue of English, Scotch, or Irish qualifications, is in possession of a foreign degree in medicine, to cause a description of such foreign medical degree to be added to his name as an additional title in the Medical Register, provided he shall satisfy the General Council that he obtained such degree after proper examination and prior to the passing of this Act.

XVII. *Power of Her Majesty in Council to define colonies and foreign countries to which this part of the Act applies.*—(1) Her Majesty may from time to time by Order in Council declare that this part of this Act shall be deemed on and after a day to be named in such Order to apply to any British possession or foreign country which in the opinion of Her Majesty affords to the registered medical practitioners of the United Kingdom such privileges of practising in the said British possession or foreign country as to Her Majesty may seem just; and from and after the day named in such Order in Council such British possession or foreign country shall be deemed to be a British possession or foreign country to which this Act applies within the meaning of this part thereof; but until such Order in Council has been made in respect of any British possession or foreign country, this part of this Act shall not be deemed to apply to any such possession or country; and the expression "the prescribed day" as used in this part of this Act means, as respects any British possession or foreign country, the day on and after which this part of this Act is declared by Order in Council to apply to such British possession or foreign country. (2) Her Majesty may from time to time by Order in Council revoke and renew any Order made in pursuance of this section; and on the revocation of such Order as respects any British possession or foreign country, such possession or foreign country shall cease to be a possession or country to which this part of this Act applies, without prejudice nevertheless to the right of any persons whose names have been already entered on the Register.

XVIII. *Amendment of 21 & 22 Vict., c. 90, s. 36, as to medical officers in ships.*—Nothing in the Medical Act, 1858, shall prevent a person holding a medical diploma entitling him to practise medicine or surgery in a British possession to which this Act applies from holding an appointment as a medical officer in any vessel registered in that possession.

PART III.—MISCELLANEOUS PROVISIONS.

XIX. *Default of General Council.*—If at any time it appears to the Privy Council that the General Council has failed to secure the maintenance of a sufficient standard of proficiency at any qualifying examinations, or that occasion has arisen for the General Council to appoint assistant examiners under this Act for the purpose of examinations held by any medical corporation, or to exercise any power or perform any duty, or do any act or thing vested in or imposed on or authorised to be done by the General Council under the Medical Acts or this Act, the Privy Council may notify their opinion to the General Council; and if Privy Council fail to comply with any directions of the Privy Council relating to such notification, the Privy Council may themselves give effect to such directions, and for that purpose may exercise any power, or do any act or thing vested in or authorised to be done by the General Council, and may of their own motion do any act or thing which, under the Medical Acts or this Act, they are authorised to do in pursuance of a representation or suggestion from the General Council.

XX. *Addition to qualifications under 21 & 22 Vict., c. 90.*—The diploma of member of the King and Queen's College of Physicians in Ireland, and the degree of Master in Obstetrics of any university in the United Kingdom, shall be deemed to be added to the qualifications described in Schedule A to the Medical Act, 1858.

XXI. *Registration of diploma in sanitary science.*—Every registered medical practitioner to whom a diploma for proficiency in sanitary science, public health, or State medicine, has after special examination been granted by any college or faculty of physicians or surgeons or university in the United Kingdom, or by any such bodies acting in combination, shall, if such diploma appears to the Privy Council or to the General Council to deserve recognition in the Medical Register, be entitled, on payment of such fee as the General Council may appoint, to have such diploma entered in the said Register, in addition to any other diploma or diplomas in respect of which he is registered.

XXII. *Exercise of powers of Privy Council.*—(1) All powers vested in the Privy Council by the Medical Acts or this Act may be exercised by any two or more of the Lords and others of Her Majesty's most honourable Privy Council.—(2) Any act of the Privy Council under the Medical Acts or this Act shall be sufficiently signified by an instrument signed by the clerk of the Council, and every order and act signified by an instrument purporting to be signed by the clerk of the Council, shall be deemed to have been duly made and done by the Privy Council, and every instrument so signed shall be received in evidence in all courts and proceedings without proof of the authority or signature of the clerk of the Council, or other proof.

XXIII. *Evidence of orders.*—The following copies of any orders made in pursuance of the Medical Acts or this Act, or the Dentists Act, 1878, shall be evidence—that is to say:—(1) Any copy purporting to be printed by the Queen's printer, or by any other printer in pursuance of an authority given by the General Council. (2) Any copy of an order certified to be a true copy by the registrar of the General Council, or by any other person appointed by the General Council either in addition to or in exclusion of the registrar to certify such orders.

SAVING CLAUSES.

XXIV. *Saving as to practice of existing practitioners.*—This Act shall not increase or diminish the privileges in respect of his practice of any person who, on the day preceding the appointed day, is a registered medical practitioner, and such person shall be entitled on and after the said appointed day to practise, in pursuance of the qualification possessed by him before the said appointed day, in medicine, surgery, and midwifery, or any of them, or any branch of medicine or surgery, according as he was entitled to practise the same before the said appointed day, but not further or otherwise.

XXV. *Saving as to local law.*—Any person who at the time of the repeal of any enactment repealed by this Act was, in pursuance of such enactment, legally entitled to practise as a medical practitioner in any colony or part of Her Majesty's dominions other than the United Kingdom, shall after the date of such repeal continue to be so entitled if he would have been entitled if no such repeal had taken place.

DENTISTS.

XXVI. *Provisions as to 41 & 42 Vic., c. 33.*—It is hereby declared that the words "title, addition, or description," where used in the Dentists Act, 1878, include any title, addition to a name, designation or description, whether expressed in words or by letters, or partly in one way and partly in the other. There shall be repealed so much of Section 4 of the Dentists Act, 1878, as provides that a prosecution for any of the offences above in that Act mentioned shall not be instituted by a private person, except with the consent of the General Council or of a branch council, and a prosecution for any such offences may be instituted by a private person accordingly. Notwithstanding anything in Section 5 of the Dentists Act, 1878, the rights of any person registered under the Dentists Act, 1878, to practise dentistry or dental surgery in any part of Her Majesty's dominions other than the United Kingdom shall be subject to any local law in force in that part. It shall be lawful for Her Majesty at any time after the said appointed day to declare by Order in Council that Section 28 of the said Dentists Act, 1878, shall be in force on and after a day to be named in such Order, but in the meantime and until such order has been made, and before such day as last aforesaid, such section shall not be deemed to be in force. Save as in this Act mentioned the Dentists Act, 1878, shall not be affected by this Act.

DEFINITIONS.

XXVII.—In this Act, unless the context otherwise requires, the expression "part of the United Kingdom" means, according to circumstances, England, Scotland, or Ireland. The expression "British possession" means any part of Her Majesty's dominions exclusive of the United Kingdom, but inclusive of the Isle of Man and the Channel Islands; and where parts of such dominions are under both a central and a local legislature, all parts under one central legislature are for the purposes of this definition deemed to be one British possession. The expression "local law" means an Act or Ordinance passed by the legislature of a British possession. The expression "the appointed day" means the first of June, one thousand eight hundred and eighty-seven, or such other day in June, one thousand eight hundred and eighty-seven, as may be appointed by the Privy Council. The expression "medical corporation" means any body in the United Kingdom, other than a university, for the time being competent to grant a diploma or diplomas conferring on the holder thereof, if he has passed a qualifying examination, the right of registration under the Medical Acts. The expression "registered medical practitioner" means any person for the time being registered under the Medical Acts. The word "diploma" means any diploma, degree, fellowship, membership, licence, authority to practise, letters testimonial, certificate, or other status or document granted by any university, corporation, college, or other body, or by any departments of or persons acting under the authority of the government of any country or place within or without Her Majesty's domains. The expression "medical diploma" means a diploma granted in respect of medicine, surgery, and midwifery, or any of them, or any branch of medicine or surgery. The word "person" includes a body of persons, corporate or not corporate. The expression "the Medical Acts" means the Medical Act, 1858 (21 & 22 Vict., c. 90), and any Acts amending the same passed before the passing of this Act.

REPEAL.

Repeal of enactments in schedule.—XXVIII. The Acts mentioned in the first part of the schedule to this Act are hereby repealed to the extent mentioned in the third column of the said part; and the Acts mentioned in the second part of the said schedule shall be repealed on and after the appointed day to the extent mentioned in the third column of the said last mentioned part; provided that the repeal enacted by this section shall not affect anything done or suffered, or any right or title acquired or accrued, before such repeal takes effect, or any remedy, penalty, or proceeding in respect thereof.

THE SCHEDULE.

FIRST PART.

Session and chapter.	Title or short title of Act.	Extent of repeal.
21 & 22 Vict. c. 90	The Medical Act, 1858	Sections 4 and 5. In Section 6 the words "The President shall be a Member of all the Branch Councils." Section 24.
46 & 47 Vict. c. 19	The Medical Act (1858) Amendment Act, 1883	The whole Act.

SECOND PART.

21 & 22 Vict. c. 90	The Medical Act, 1858	Section 31.
31 & 32 Vict. c. 29	The Medical Act Amendment Act, 1868	The whole Act.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6132 births and 2957 deaths were registered during the week ending June 26th. The annual death-rate in these towns, which had declined in the preceding fourteen weeks from 29·3 to 16·8, rose again last week to 17·0. During the first twelve weeks of the current quarter the death-rate in these towns averaged only 18·7 per 1000, and was 3·1 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 12·4 in Cardiff, 12·6 in Brighton, 12·9 in Sheffield, and 13·6 in Norwich. The rates in the other towns ranged upwards to 23·7 in Portsmouth, 24·5 in Salford, 24·9 in Bolton, and 37·1 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 265 and 293 in the preceding two weeks, further rose last week to

312; they included 96 from measles, 83 from diarrhœa, 56 from whooping-cough, 32 from "fever" (principally enteric), 24 from scarlet fever, 21 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases was recorded last week in Halifax, whereas they caused the highest death-rates in Bolton, Portsmouth, and Preston. The greatest mortality from measles occurred in Portsmouth, Bolton, and Preston; from whooping-cough in Manchester and Preston; from "fever" in Portsmouth; and from diarrhœa in Derby and Salford. The 21 deaths from diphtheria in the twenty-eight towns included 14 in London, 2 in Wolverhampton, and 2 in Birmingham. Small-pox caused no death either in London and its outer ring, or in any of the twenty-seven large provincial towns. The number of small-pox patients in the metropolitan hospitals situated in and around London, which had been 31 and 23 on the preceding two Saturdays, had further declined to 17 at the end of last week; 4 cases were admitted to these hospitals during the week, against 9 and 2 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 216 and 184 in the preceding two weeks, rose again last week to 194, but were 29 below the corrected average. The causes of 73, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Leicester, Sunderland, Newcastle-upon-Tyne, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Salford, Oldham, Huddersfield, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·9 and 21·7 per 1000 in the preceding two weeks, declined to 20·2 in the week ending June 26th; this rate exceeded, however, by 3·2 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 12·5 and 16·4 in Greenock and Perth, to 20·8 in Edinburgh and 22·5 in Glasgow. The 498 deaths in the eight towns showed a decline of 38 from the number in the previous week, and included 21 which were referred to whooping-cough, 20 to measles, 11 to diarrhœa, 7 to scarlet fever, 6 to "fever," and not one either to diphtheria or small-pox; in all, 65 deaths resulted from these principal zymotic diseases, against 68, 49, and 57 in the preceding three weeks. These 65 deaths were equal to an annual rate of 2·6 per 1000, which exceeded by 0·8 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 21, 19, and 18 in the previous three weeks, rose again last week to 21, of which 16 occurred in Glasgow, 3 in Aberdeen, and 2 in Edinburgh. The 20 deaths from measles showed a further increase upon recent weekly numbers, and included 11 in Edinburgh, 6 in Leith, and 3 in Glasgow. The 11 deaths attributed to diarrhœa also exceeded the numbers in recent weeks, and were 5 above the number in the corresponding week of last year. Six of the 7 fatal cases of scarlet fever and 5 of the 6 deaths referred to "fever" occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 90 and 93 in each of the previous two weeks, declined last week to 86, but exceeded by 12 the number in the corresponding week of last year. The causes of 82, or 16 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 20·8 and 22·9 per 1000 in the preceding two weeks, further rose to 24·7 in the week ending June 26th. During the first twelve weeks of the current quarter the death-rate in the city averaged 25·8 per 1000; the mean rate during the same period did not exceed 17·3 in London and 19·7 in Edinburgh. The 167 deaths in Dublin last week showed a further increase of 12 upon the numbers in the two previous weeks, and included 10 which were referred to the principal zymotic diseases, against 5 and 7 in the previous two weeks; 3 resulted from scarlet fever, 3 from whooping-cough, 2 from "fever," 1 from diphtheria, 1 from diarrhœa, and not one either from small-pox or measles. These 10 deaths were equal to an annual rate of 1·5 per 1000, the rates from the same diseases being 1·8 in London and 3·7 in Edinburgh. The fatal cases both of scarlet fever and whooping-cough showed an increase upon the numbers in the previous week. The deaths referred to fever were fewer by one than the number in the previous week, the mortality from this disease having shown a marked decline during the present quarter. Five inquest cases and 6 deaths from violence were registered; and 49, or more than a quarter, of the deaths were recorded in public institutions. The deaths both of infants and of elderly persons showed an increase upon recent weekly numbers. The causes of 28, or 17 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

JOHN HUNTER.

To the Editor of THE LANCET.

SIR,—Circumstances have brought teaching in hospitals as well as John Hunter rather to the fore lately. I have in my possession the correspondence that took place between him and his colleagues at St. George's Hospital, relating to their unfortunate disagreement at the hospital. I send you some extracts from an address by Hunter to the governors of the hospital. I have omitted some portions that are more personal than at the present time interesting. At the time (1768) of his election as surgeon to the hospital, his colleagues were Cæsar Hawkins, Bromfield, and Gunning; subsequently Charles Hawkins, George Hawkins, William Walker, and Thomas Keate, with Everard Home as an assistant. I do not now offer any opinion upon this unfortunate controversy—the immediate cause of his death,—as I may print the whole correspondence; it shows well the state of medical education not only at St. George's a hundred years ago, but also at Guy's and St. Thomas's Hospitals, the information being supplied by the teachers at these hospitals at that time for the guidance of the staff at St. George's in drawing up a system for medical education.—I am, Sir, yours truly,

June 12th, 1886. CHARLES HAWKINS.

"To the Governors of St. George's Hospital.

"When I solicited to be appointed one of the surgeons to St. George's Hospital, it was not with a view to augment my income, either immediately by the profits of the hospital, or in a secondary way by increasing my practice; but to acquire opportunities of extending my knowledge, that I might be more useful to mankind, not only by improving my private practise, but if I should be enabled to make discoveries even in the art itself. I had a view also to the instruction of those who were studying under me, particularly to that of the pupils of the hospital, whose improvement is one principal benefit accruing to the public from such instructions, and I have reason to believe that my intentions and endeavours in all these points have been attended with some success. . . . I conceived that the governors of the hospital would wish that not only immediate relief should be given to the poor and distressed, but that the hospital should diffuse its influence to mankind in general; and by these means, even to themselves. I concluded that to render the hospital of such universal use would be agreeable to the feelings of the governors of this charity, and probably considered by them as the most important service. I conceived to give an hospital a reputation for improvement it was to invite the philosopher as well as the charitable to contribute to its support. Other hospitals were beginning to participate in the improving spirit of the times, more especially those into which the younger surgeons had been elected. They united their powers, and had lectures given to their pupils, not only in surgery, but in every branch of the healing art. Mr. Pott, though one of the senior surgeons in London, gave lectures to the pupils of St. Bartholomew's Hospital, which lectures became the basis of his works on the operations in surgery, and do credit to the governors of that charity for their choice of one so able to instruct.....Finding the pupils of St. George's Hospital fewer than they had formerly been, I imputed it to the want of that increasing attention which the surrounding improvements in the art required, for one part should keep pace with the other. My practice in the hospital soon convinced me that this observation was just, and having been long in

the habit of improving myself along with others, it had become in a manner natural to me.....When I mentioned what the medical gentlemen of other hospitals did, and what I thought we should do, one gentleman said, 'he did not choose to lose any reputation he might have in surgery by giving lectures,' which, at least, was modest. Talking of the improvement of the art, one of the surgeons confessed 'he did not see where the art could be improved.' The natural conclusion from this declaration was that such a man would never improve it; but the answer then made was, 'to see where anything could be improved might be considered as going almost half way towards the improvement itself; and that Lord Bacon was the cause of all the advances in philosophy since his day, by seeing and pointing out where and how they might be made.'.....In this [a recent election of a surgeon to the hospital], as in most other public contests, the mind, inflamed by opposition, lost sight of the great object, by which means private friendships and connections had more weight than public utility, to which object the governors will not on the present occasion confine themselves. My motive was in the first place to serve the hospital, and in the second to diffuse the knowledge of the art, that all might be partakers of it; this, indeed, is the highest office in which a surgeon can be employed, for when considered as a man qualified only to dress a sore or perform a common operation, and perhaps not all of those that may be reckoned common, he cannot be esteemed an ornament to his profession. ..... They [the governors] will consider how far a numerous class of pupils increases the reputation of the hospital; they will consider whether those numbers do not produce the secondary good arising from an hospital, which is the effectual diffusion of knowledge, and, if so, whether every surgeon should not be in duty bound to contribute his share towards this good purpose ..... I hope this Court will not consider this as similar to a contested election between two men. It is of general interest; it concerns no individual, or, if any, only four men, who are servants of the hospital; and though in one point of view I may appear to stand single, yet I stand on equal ground with the governors of this charity, who formerly established the very law the advantages of which I have now illustrated. Indeed, from a consciousness of the disinterestedness of my motives, and a conviction of the clearness of the question in point of public utility, which I trust they cannot overlook and will not disregard, it would give me more pleasure to see the friends of the other gentlemen here today than my own. In whatever way it may be determined to me is personally immaterial; the good of mankind, the improvement of the healing art, and the character of the hospital are the motives of my conduct, and according to which, whatever may be the decision of the present question, I shall continue to do my duty to the hospital as a charity, and confine myself to the laws of the institution.

"Leicester square, Feb. 28th, 1763." "JOHN HUNTER.

PROPOSED UNIFORM DIETARY SCALES FOR WORKHOUSES AND INFIRMARIES.

To the Editor of THE LANCET.

SIR,—At a meeting of the guardians of St. George-in-the-East on Friday last, Mr. Dellow moved a resolution to the effect that a memorial be addressed to the Local Government Board, asking them to adopt a uniform dietary scale for all the workhouses in the metropolis. He had statistics for 1883 showing the annual cost per head for provisions in the various metropolitan workhouses, and from these it appears that the cost at Whitechapel is the lowest, being £5 19*s.* 3*d.* per head per annum, while at Lewisham it is £12 1*s.* 9*d.* Referring to the East-end, he showed that the cost of provisions was the highest at St. George's, where it is £7 11*s.* 9*d.*, or £1 12*s.* 6*d.* more than at Whitechapel Union. Poplar, Stepney, Shoreditch, and Hackney each cost varying amounts between the two given above, but increasing in the order in which they are named. The motion was seconded and carried with but two dissentients. Mr. Crowder gave notice that he would move an addition to the resolution asking for a uniform dietary scale in all metropolitan Poor-law institutions.

There is no doubt that there should be uniform dietary scales for the inmates of all workhouses and infirmaries, and in addition there should be drawn up uniform diet tables for all the officers and servants residing in these institutions. As it is, there is much discrepancy in the dietaries and no real reason for it, as the duties and responsibilities of the officers and servants are much the same in all. Why, for instance, should the assistant medical officer at Marylebone Infirmary have a much better dietary than the assistant medical officer at St. George-in-the-East? At Whitechapel Infirmary, the assistant medical officer has extra salary and provides his own rations. If the Local Government Board were to effect these changes, they would remove the existing dissatisfaction. Uniformity, however, could only be obtained on paper, for what according to the diet table may appear to be a very good dietary, may in reality be but a poor one, as, though the articles are supplied in proper quantity, some of them may be so deficient in quality as to be scarcely fit for food. As there is frequently a considerable amount of trickery in the supplying public institutions with provisions &c., it behoves guardians to be on the alert, and see for themselves that contractors continue to supply goods of the same quality as the samples. A more frequent visitation of the stores and at unexpected times, or an inspection when goods are being delivered, would in all probability be attended with the most beneficial results.

I am, Sir, your obedient servant,

London, June 21st, 1886. SCRUTATOR.

DURATION OF LIFE OF THE RED BLOOD-CORPUSCLES.

To the Editor of THE LANCET.

SIR,—In referring to a paper on "The Duration of Life of the Red Blood-corpuscles, as ascertainable by Transfusion," recently read by me before the Royal Society of Edinburgh, your correspondent in your last issue ascribed to me a method of investigation which would entirely deprive the results of any value which may attach to them.

So far from transfusing the blood of one animal into the circulation of another of different species, whose blood-corpuscles were of different size and shape, I was at pains to show that such a method of investigation, implying as it did the use of "dissimilar" blood, was absolutely worthless for the attainment of the object in view, since the blood-corpuscles of such blood always break down in the body of their host within a day or two of injection, and hence their duration of life could offer no criterion of that of the normal red blood-corpuscles. In all my experiments, therefore, the blood used was that obtained from an animal of the same species—so-called "similar" blood—the fate of which after transfusion differs essentially from that of dissimilar blood, but resembles in all respects that of the normal blood.

I should feel greatly obliged if you could kindly give the same prominence to the above correction as was given to the original reference, as the ignorance on my part implied in the use of the kind of blood described by your correspondent for arriving at any conclusions regarding the life duration of normal blood-corpuscles is so great as would serve to completely condemn the accuracy of my results in the estimation of all who are already acquainted with the subject of transfusion. I remain, Sir, yours faithfully,

Edinburgh, June 27th, 1886. WILLIAM HUNTER.

BRITISH MEDICAL BENEVOLENT FUND JUBILEE.

To the Editor of THE LANCET.

SIR,—In addition to the sums already mentioned, the following donations have been received:—

	£	*s.*		£	*s.*
W. Cadge, Esq. (Norwich)	52	10	W. Morrant Baker, Esq. ...	10	10
G. D. Pollock, Esq.	21	0	Sir William Mac Cormac ...	5	5
Sir Spencer Wells	21	0	W. Berkeley Hill, Esq.	5	5
Sir Henry Thompson	21	0	D. de Berdt Hovell, Esq. ...	5	5
Lady Wilson	21	0	F. B. Webb, Esq.	5	5
Mrs. Montefiore	21	0	C. E. Aikin, Esq.	5	5
Dr. Wegg	21	0	C. A. Aikin, Esq.	5	5
E. Parker Young, Esq.	21	0	Dr. Withers Moore	5	5
Dr. Ord	20	0	Mrs. Franz (through Dr. Parsons) (Dover)	5	0
Dr. Brodie Sewell	10	10			

Mr. Veasey's donation is £25, instead of £20, as previously stated.

The list of guests at the banquet must be closed almost at once, and I have to request that all who have not replied will do so without delay.

I am, Sir, yours faithfully,

34, Seymour-street, Portman-square, W. W. H. BROADBENT.

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY ELECTION.

THE election of a representative in Parliament of the Universities of Edinburgh and St. Andrews will take place next week. Mr. Macdonald, the present member, has issued an address to the electors in which he offers himself for re-election; and at present it seems most unlikely that any opposition will be offered to his return. In consequence of the absence of the Vice-Chancellor of the University the duties of returning officer for the election will devolve upon Professor Sir Douglas Maclagan, the senior professor available, who at a recent meeting of the University Court was deputed by their authority to act for the time, and for the purpose referred to, as Vice-Chancellor of the University. The present member, the Right Hon. J. H. A. Macdonald, Q.C., was returned for the University at the last general election by a considerable majority of votes over Mr. Erichsen; he acted as Lord-Advocate under the late Conservative Government.

SIR DOUGLAS MACLAGAN.

Last Wednesday a congratulatory address was presented to Professor Sir Douglas Maclagan, on the occasion of his knighthood, by the undergraduates of the University, through the Students' Representative Council. Sir William Turner presided at the meeting, which was held in the anatomy theatre, and which was attended by a densely packed crowd of enthusiastic students. In replying to the address, and in thanking the students for their enthusiastic demonstration in his honour, Professor Maclagan took occasion to discuss the claims of wide culture in relation to medical studies; and he urged upon his hearers the importance of keeping their minds free from the narrowing effect of too close concentration upon one branch of study. He advocated the cultivation of collateral interests in art or literature, and, above all, the maintenance of a robust and healthy physique by developing an interest in one or other of the forms of physical exercise or of manly sports.

DR. WENDELL HOLMES IN EDINBURGH.

Dr. Holmes's visit to Edinburgh has partaken largely of the nature of an academic triumph, and not only has he been most warmly welcomed by all connected with the University, but his presence in the city has excited great interest amongst the very many who, as members of the reading community, have come in contact with his writings. On Friday afternoon the honorary degree of LL.D. was conferred upon him in the Upper Library Hall of the University by the Chancellor, Lord Inglis. The hall was crowded for the occasion, there being a large number of ladies present in reserved seats and in the galleries, whilst the body of the hall was occupied by visitors and a considerable number of students. On entering the hall Dr. Holmes was greeted with enthusiastic cheering, which was from time to time renewed as the ceremony proceeded. Professor Kirkpatrick, Dean of the Faculty of Law, delivered a short address of the customary nature, in presenting Dr. Holmes to the Chancellor for promotion to the degree. He shortly referred to the leading events in Dr. Holmes's career, and enumerated the names of some of his best-known writings. After Lord Inglis had completed the ceremony of "capping" the Autocrat, the latter signed the roll-book of honorary graduates of the University, and then, in response to urgent cries of "speech," he addressed a few words to the students, thanking them for the warm reception they had accorded him, and expressing the gratification he had experienced in enacting his part in that day's ceremony. The meeting terminated amidst renewed cheers for Dr. Holmes and the singing of "For he's a jolly good fellow." On Saturday evening the students held a concert in honour of Dr. Holmes, at which he was present. Professor Crum Brown occupied the chair, and the Queen-street Hall, which was taken for the occasion, was crowded with an interested audience of students and their friends. After the first part of the programme had been concluded, Dr. Holmes was presented with an address from the students welcoming his visit to Edinburgh, and expressing their earnest appreciation of the value of his writings. In replying, Dr. Holmes sketched an interesting outline of his own career, and in particular he dwelt upon the relation which existed between the literary and professional portions of his life-work. In this connexion he gave important advice to young men who have a passion for literary labours. Literature, he said, was a good staff for walking with, but not a good one to lean upon. He had early received an important piece of advice from the lips of Coleridge, that every literary man should have as well some fixed and regular occupation; this advice he handed on to any who might feel tempted to exchange steady preparation for a practical career for the uncertain pathway of a literary life. In concluding his remarks, Dr. Holmes thanked the students for the brilliant reception they had given him, the memory of which would be a lasting and inspiring pleasure to him for the remainder of his life.

Edinburgh, June 29th.

ABERDEEN.

(From our own Correspondent.)

ROYAL INFIRMARY.

THE preface to the annual report for last year says that "the history of the Aberdeen Royal Infirmary during 1885, apart from the stated work of the hospital, has been marked by some features of interest. ..... The managers record with satisfaction that the appointment of Miss Lumsden has already been attended with the best results, both in the arrangements for nursing and housekeeping. ..... The sanitary condition of the hospital has been greatly improved; but the administration is put to disadvantage on account of the small size of some of the wards and deficiency of accommodation; attempts at improvement have been made, but nothing effectual can be done without improved buildings." The number of cases treated in the wards was 1951, and of these 1135 were surgical, with 29 deaths; 816 were medical, with 85 deaths; 910 persons, including 194 eye cases, received advice and medicine as out-patients. The expenditure for the year was £7171 5*s.* 1*d.*, and unfortunately the income fell short of this sum by £956 3*s.* 2*d.* The most important changes proposed in the new charter are:—1. The separation of the management of the Lunatic Asylum from that of the Infirmary and Convalescent Hospital. 2. The present Board of Managers is hereafter to be known as the Constituent Board, which is to meet annually (instead of quarterly as at present), to elect directors for the government of each branch of the institution. The number of directors on each of the two boards was first fixed at fifteen, but as the two committees might occasionally have to meet together, it was thought better to fix the number at nine. 3. Ladies are "to be as free as men are to take part in the management" of the institution. The Charter Committee suggest that the contemplated changes in the constitution should be carried out by means of an Act of Parliament, in place of by new charter, which involves the use of cumbrous and not readily intelligible language, whereas in an Act of Parliament the phraseology might be made much clearer, and the new constitution placed in a much more distinct light before all concerned. At their quarterly meeting, held on the 14th ult., the managers agreed to the recommendation of the Committee of Management that an assistant-physician should be appointed, and resolved to make the appointment at their next meeting in September. Five candidates entered the field, but one, Dr. Edmond, is said to have retired, the four remaining being Drs. Booth, MacGregor, Rodger, and Smith. It is to be hoped that the gentleman appointed will do something to supply the want of clinical teaching.

AMPUTATION OF UPPER LIMB, INCLUDING SCAPULA AND TWO-THIRDS OF CLAVICLE.

At the beginning of the winter session, Professor Ogston excised, in the case of a young man aged twenty-one, the head of the humerus, which was involved in a large sarcomatous tumour. The disease returned, and to eradicate it thoroughly Dr. Ogston removed the entire limb, including the scapula and two-thirds of the clavicle. The patient made an excellent recovery.

DEATH OF DR. OGILVIE FORBES.

Dr. Ogilvie Forbes, who till 1877 filled the chair of Physiology in Aberdeen, died at Boyndlie, near Fraserburgh, on the 25th ult. The son of a physician, he chose his father's profession, and was first engaged in private practice; but in

1848 he was appointed Lecturer on Physiology in Marischal College, and then retired from practice. On the amalgamation of the two colleges he was appointed Professor of the Institutes of Medicine, which, owing to failing health, he resigned in 1877, when Dr. Stirling was appointed his successor. Dr. Ogilvie Forbes was sixty-six years of age.

DISEASED MEAT PROSECUTION.

There have recently been several prosecutions of individuals for selling diseased meat, and the medical evidence has in each been very conflicting. On Saturday of last week the sanitary inspector presented a petition to the magistrates craving permission to destroy a certain quantity of ham which he found being sold for human food, and which, in his opinion, was unfit for such. Dr. Thomson, medical officer of health, said that "the hams were altered in colour, smell, and consistency—the worst parts were putrid." A medical witness for the defence said that the ham "was all one piece; it had a very nice colour and a very sweet smell, with the exception of one part." The magistrates, however, declared the ham unfit for human food, and ordered it to be destroyed. Some weeks ago the sanitary officials seized a large quantity of fish which they considered unfit for human food. Drs. Beveridge and MacGregor said on oath that they were of the same opinion, but medical witnesses for the defence said they considered the fish quite good and fit for human food, and, indeed, had some of the worst cooked and ate them. Again, however, the verdict was in favour of the prosecution.

Aberdeen, June 29th.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of medical students connected with the medical school of the college, held last week, the following resolutions were unanimously adopted:—1. "Whereas medical students who have entered under the new regulations, made in 1882, are subjected to other rules subsequently introduced, to this the meeting does object on the grounds that due notice has not been given." 2. "Whereas the fees formerly paid for re-examination have been afterwards (1886) increased without any apparent justification, the meeting is of opinion that the Council of the Royal College of Surgeons should reconsider their decision." The composition of these resolutions is not so well put as it might be, but the last paragraph has reference to the present fee for re-examination, which, early this year, was raised to three guineas instead of two, as formerly. At the examinations for the First Half, which commenced last week, the failures were unusually numerous—viz., of nineteen candidates, fifteen were rejected.

UNIVERSITY OF DUBLIN.

The annual meeting of the Senate took place last week, and among the graces submitted from the Provost and Senior Fellows was that the degree of LL.D. (*honoris causâ*), should be conferred on John Tyndall, F.R.S., Professor of Natural Philosophy in the Royal Institution of Great Britain. Dr. Ingram said that he asked the votes of the Senate in favour of a distinguished Irishman, Professor John Tyndall. He stood in the foremost rank of living physicists, and there was scarcely any branch of physics with which his name is not honourably associated. Heat considered as a mode of motion, the absorption and radiation of gases and vapours, the phenomena of diamagnetism, and the relations of magnetism and diamagnetism to molecular structure, the floating matter of the air in relation to putrefaction and infection, the motion of glaciers, the methods of lighthouse illumination, and the theory of sound—all these subjects had been investigated by him. He was a master of the art of scientific exposition, as might be seen in his accounts of Faraday as a discoverer, and of Pasteur's researches on spontaneous generation; and as a writer he possessed a vigour, elasticity, and occasional elevation of style which many men of letters might well envy. The grace was passed.

THE ADELAIDE HOSPITAL, DUBLIN.

The examinations for the Hudson Scholarship, which consists of a gold medal and £30, and the Hudson Prize—a silver medal and £10—have concluded. There were two competitors, but the answering being below the standard fixed, the scholarship will not be awarded this year. Mr. Strangman, a fourth-year student, obtained the Hudson Prize.

BELFAST ROYAL HOSPITAL.

A handsome stained glass window has been placed on the main staircase of this hospital, which has been erected at the sole expense of Dr. Whitla, author of the well-known "Manual of Materia Medica," and one of the visiting physicians of the institution.

Dublin, June 29th.

THE COLLEGE ELECTION.

THE voting at the above election, which took place at the Royal College of Surgeons on Thursday afternoon, was not of that exciting character which often signalises this event. Only about 260 Fellows voted, and at five o'clock the result, which is as follows, was announced:—

MR. EDWARD LUND	162	including	1	plumper.
MR. BERKELEY HILL	142	"	10	"
MR. REGINALD HARRISON	109	"	10	"
MR. SEPTIMUS SIBLEY	108	"	3	"
Mr. Alfred Willett	96	"	10	"
Mr. John Couper	80	"	6	"
Mr. R. Brudenell Carter	71	"	5	"
Mr. James Rouse	34	"	1	"

Mr. Edward Lund and Mr. Berkeley Hill were therefore duly re-elected, and Mr. Reginald Harrison and Mr. Septimus Sibley elected members of the Council.

There was, as usual, a large and interesting exhibition of specimens which have been added to the museum of the College during the past year; some are of special interest, and form valuable additions to this important collection.

THE SERVICES.

THE Indian Government has conferred a good service pension upon Surgeon-General B. Simpson, M.D.

ADMIRALTY.—The following appointments have been made:—Surgeon John Anderson M'Adam, to the *Penguin;* Surgeon Thomas Martyn Sibbald, to the *Duke of Wellington;* Surgeon Robert Forbes Bowie, to the *Superb;* and Surgeons Alfred John Pickthorne, James Henry Dawe, and East Apthorpe, to the *Duke of Wellington*, additional, for disposal.

ARTILLERY VOLUNTEERS.—1st Dorsetshire: Augustus Kinsey-Morgan, Gent., to be Surgeon.

RIFLE VOLUNTEERS.—4th Middlesex (West London): Surgeon G. E. Norton is granted the honorary rank of Surgeon-Major.—1st Cumberland: Surgeon M. W. Taylor is granted the honorary rank of Surgeon-Major.—1st Volunteer Battalion, the Norfolk Regiment: Acting Surgeon C. W. Doyle, M.B., resigns his appointment.

MEDICAL NOTES IN PARLIAMENT.

The Medical Acts Amendment Bill.

IN the House of Commons on the 23rd ult., on the consideration of the Lords' amendments to this Bill, Mr. Tanner remarked that when the Bill was under discussion in that House, a division was taken on the point whether the Universities of Aberdeen and St. Andrews should each have a member, or whether they should have one member between them. On that occasion the House came to the conclusion that it would be better to treat them collectively, and therefore he now moved that the House should disagree with the amendment which had come down from the Lords.—Mr. J. A. Campbell supported the Lords' amendment on the ground that it gave effect to the principle which this House had laid down in the first instance.—Sir L. Playfair, while sympathising very much with the hon. member for the county of Cork, hoped the House would agree with the Lords' amendment.—Mr. Sexton urged his hon. friend not to press his objection.—The motion was then withdrawn, and the Lords' amendments were agreed to.

Medical News.

UNIVERSITY OF DURHAM.—At the recent examinations for degrees in Medicine and Surgery the following satisfied the examiners:—

DOCTOR IN MEDICINE, FOR PRACTITIONERS OF FIFTEEN YEARS' STANDING.

Bately, John, L.R.C.P., M.R.C.S., L.S.A.
Cleghorn, George, M.R.C.S., L.S.A.
Crossman, Edward, L.R.C.P., M.R.C.S., L.S.A.
Eustace, Edward, L.R.C.P. Edin., L.R.C.S. Irel.
Fishbourne, Joseph Eustace, L.R.C.P. Edin., L.R.C.S. Irel.
Gowans, William, L.R.C.P., L.R.C.S. Edin.
McDermott, Joseph Patrick, L.R.C.S.I., L.K.Q.C.P.I.
Patrick, Robert, L.R.C.P. Edin., M.R.C.S.
Perkins, Whitfield, M.R.C.S., L.S.A.
Reston, Henry, L.R.C.P., M.R.C.S., L.S.A.
Tinley, Thomas, L.R.C.P. Edin., L.S.A.

DOCTOR IN MEDICINE (Essay).

Cock, Frederick W., M.B., M.R.C.S., L.S.A.
Edwards, W. Rice, M.B., M.R.C.S.
Parsons, J. Inglis, M.B., M.R.C.S.
Rodman, G. Hook, M.B., M.R.C.S., L.S.A.
Salvage, J. Valentine, M.B., L.R.C.P., M.R.C.S.
Tomson, Walter, Bolton, M.B.
Wigan, C. Arthur, M.B., M.R.C.S.
Wills, J. Pearce Budgett, M.B., M.R.C.S.

MASTER IN SURGERY.

Baumgartner, H. Spelman, M.R.C.S., L.S.A., College of Medicine, Newcastle-upon-Tyne.
Caley, G. Neville, L.R.C.P., M.R.C.S., St. Mary's Hospital.
Platt, H. T., M.B., College of Medicine, Newcastle-upon-Tyne.

BACHELOR IN MEDICINE (Final Examination).

Arnold, Ernest C., M.R.C.S., St. George's Hospital.
Bass, Frederick, L.R.C.P., St. Bartholomew's Hospital.
Baumgartner, H. Spelman, M.R.C.S., L.S.A., College of Medicine, Newcastle-upon-Tyne.
Blacker, A. Barry, M.R.C.S., L.S.A., St. Thomas's Hospital.
*Caley, G. Neville, L.R.C.P., M.R.C.S., St. Mary's Hospital.
Carlyon, E. Trewbody, L.R.C.P., M.R.C.S., St. Bartholomew's Hospital.
Codd, Arthur F. Gambell, M.R.C.S., St. George's Hospital.
Courteen, Raymond, M.R.C.S., St. Bartholomew's Hospital.
Cranstoun, C. Bruce, St. Thomas's Hospital.
Cross, Henry W., College of Medicine, Newcastle-upon-Tyne.
Davis, Ifor, Middlesex Hospital.
Dimmock, Augustus F., M.R.C.S., L.S.A., King's College.
Dove, Augustus C., M.R.C.S., St. Bartholomew's Hospital.
Garrett, John Henry, University College.
Hamilton, Geo. Clarendon, L.S.A., London Hospital.
Hardwick, Arthur, L.S.A., Westminster Hospital.
Hickey, Evan Lewis, M.R.C.S., King's College.
*James, J. Thomas, F.R.C.S. Eng., Middlesex Hospital.
Jeffree, Frank, M.R.C.S., L.S.A., King's College.
Larking, Arthur Ernest, M.R.C.S., L.S.A., Guy's Hospital.
Low, C. W., L.R.C.P., M.R.C.S., L.S.A., St. Bartholomew's Hospital.
Manning, Philip Percy, King's College.
O'Connor, C. Patrick, University College.
Paige, H. B. Wood, College of Medicine, Newcastle-upon-Tyne.
Phillips, Edward, M.R.C.S., Queen's College, Birmingham.
Race, William, College of Medicine, Newcastle-upon-Tyne.
*Rawes, William, M.R.C.S., London Hospital.
Richardson, W. G., College of Medicine, Newcastle-upon-Tyne.
Ruddock, W. James, College of Medicine, Newcastle-upon-Tyne.
Spoor, William Joseph, M.R.C.S., Middlesex Hospital.
Straughan, John, College of Medicine, Newcastle-upon-Tyne.
Sugden, Edward Scott, St. Thomas's Hospital.
Sumpter, Berners G., College of Medicine, Newcastle-upon-Tyne.
Turnbull, W., L.S.A., College of Medicine, Newcastle-upon-Tyne.
Wilding, James, L.R.C.P., M.R.C.S., Westminster Hospital.
*Young, E. Herbert, L.R.C.P., M.R.C.S., L.S.A. Univ. Coll.

* Second Class Honours.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At an examination recently held the following obtained the Fellowship:—

Archibald Adams, M.D., Indian Medical Department.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 24th ult.:—

Chick-Lucas, J. Robb Goodman, M.R.C.S., Bellevue, Brading, Isle of Wight.
Bisell, George Alfred, The Grove, Beulah-hill, Upper Norwood.
Hemming, Claude Philip, Highfield, Bishop's Waltham.
Luff, Arthur Pearson, Denmark Villas, Ealing.
Michelmore, George, M.R.C.S., Gloucester-street.
Permewan, William, Redruth, Cornwall.
Seville, Charles Frederick, Mossley, Manchester.
White, Francis Silva, Lexham-gardens.

ON the 30th ult. their Royal Highnesses the Prince and Princess of Wales performed the ceremony of opening the new wing which has been added to the Royal Victoria Hospital for Children at Chelsea. The cost of the new building has been £7500, and the contributions already received amount to £4000.

ON the 25th ult. the new wing of the Queen Charlotte's Lying-in Hospital, Marylebone-road, was formally opened by the Princess of Wales.

AT a meeting of the City Corporation on the 1st inst. it was referred to a committee to consider the propriety of acquiring the Tottenham Marshes as an open space.

THE Metropolitan Board of Works on the 25th ult. decided to order from the Barrow Shipbuilding Company (Limited) a vessel capable of conveying 1000 tons of sewage sludge out to sea.

BEQUESTS.—Sir William Gillilan Johnson, late of Belfast, has bequeathed £250 to the Belfast Royal Hospital, £250 to the Belfast Ophthalmic Institution, and £100 to the Belfast Hospital for Skin Diseases.

SANITARY INSTITUTE OF GREAT BRITAIN.—The anniversary dinner of the institute will be held at the Holborn Restaurant on the 8th inst., and will be presided over by Captain Douglas Galton, C.B.

AT a meeting held on the 23rd ult. in the boardroom of the York County Hospital it was unanimously resolved that a Volunteer Medical Association for Yorkshire be formed.

HUDDERSFIELD INFIRMARY.—The Board of Management of this Infirmary have requested Messrs. H. Saxon Snell and Son to prepare designs for the enlargement of the building, and also a report as to the sanitary condition of the premises generally.

AN unfortunate teetotaller some months ago attended a temperance lecture, and was there informed that ammonia was the best substitute for alcohol. Having a pain in the chest, he took a tablespoonful of the drug, which caused his death after great agony. At the inquest the jury returned a verdict of accidental death.

PIROGOFF MEMORIAL CHURCH.—In the May number of the *Russkaya Starina* there is a picture of a handsome church of Byzantine architecture, with dome and cupola surmounted by a cross, which has just been erected over the grave of the illustrious Russian surgeon, Prof. Pirogoff, at Vishna, near Vinnitsa, in the province of Podolsk. Our medical contemporary, the *Vrach*, publishes a copy of this engraving in its issue, No. 20.

NORTH LONDON HOSPITAL FOR CONSUMPTION.—The festival dinner in aid of the funds of this institution was held on the 23rd ult., when subscriptions and donations amounting to £1256 were announced. The hospital, which is unendowed, and depends entirely upon voluntary contributions, receives patients from all parts of the kingdom, and 160,000 patients had been relieved since its foundation. The total receipts from all sources during the year 1885 were £4837 11*s.* 2*d.*, against £3029 2*s.* 6*d.* in 1884, and £2736 3*s.* 1*d.* in 1883.

NATIONAL DENTAL HOSPITAL.—On the 29th ult. a dinner in aid of the funds of this institution was held, the chair being taken by Alderman Sir Robert N. Fowler. In proposing prosperity to the National Dental Hospital, the chairman stated that the hospital had been founded in 1861, and after existing a quarter of a century came forward for the first time to appeal for support—after the fashion followed by so many other charities—at a dinner. Since its institution it has relieved 221,422 cases, the number of patients in 1885 being 20,367, and of cases of operation 37,364.

LADY DUFFERIN'S FUND.—The managers of this fund have published an account of the progress made in supplying female medical aid to the women of India, in which they state that the attendance at the dispensary in Calcutta is increasing rapidly, and that the institution promises to be a great success. The North-Western branch association is establishing a female hospital at Allahabad, while the female medical school at Agra shows great vitality. A provincial branch association has been formed at Rangoon, and from Lahore, Delhi, and some of the native States come applications for more lady doctors. The conditions on which the Queen's and Viceroy's medals are to be awarded will shortly be made public. Money is, however, urgently required, the sums already subscribed having proved quite insufficient to meet the requirements.

THE Lord Chancellor has added to the Commission of Peace for Cardiff the name of Mr. D. E. Jones, L.R.C.P. Ed., F.R.C.S. Ed.

ANCIENT ALCHEMIST'S LABORATORY.—In connexion with the British Association meeting which is to be held in Birmingham, there is to be an Exhibition, and Messrs. Southall Bros. and Barclay are desirous of representing an ancient alchemist's laboratory. They have received most generous help from Professor Redwood, Henry Irving, Esq., Lawson Tait, Esq., Messrs. Corbyn and Co., Messrs. Godfrey and Cooke, and others, and they will be greatly obliged to gentlemen who possess old utensils, implements, fixtures, &c., if they will forward particulars in case they are disposed to lend them for the occasion. The Exhibition will remain open for about six weeks, commencing the latter part of August.

TANFANI v. WINSLOW.—This case was decided in the Court of Queen's Bench on the 25th ult. The following are the facts:—Madame Tanfani, suing as a married woman under her separate estate, brought an action against Dr. Winslow for alleged false imprisonment in Sussex House Asylum. The lady was confined as long ago as 1878, but being then a *femme couvert* she could not bring her action until after the passing of the Women's Property Act in 1883, when she became a *femme sole*. Dr. Winslow received the lady on the order signed by the sister and by two medical men, against whom actions are still pending. Within three days of her incarceration in an asylum, she was visited by the Commissioners in Lunacy, and again after she had been there a few weeks, who pronounced on her insanity. She had also been confined in Rome, and was brought over from Italy by two men. Dr. Winslow appeared in person to defend this action. Without requiring Dr. Winslow to call witnesses or address the Court, Mr. Justice Manisty submitted to the jury that what Dr. Winslow did was perfectly justified, and the jury returned a verdict for the defendant.

ST. THOMAS'S HOSPITAL.—On Wednesday the Dean of Westminster distributed the prizes at this hospital for the summer session 1885-86. The Dean offered some good counsel to the younger members of his audience, which he enforced and illustrated by a telling anecdote. Among the successful students were Mr. J. W. Wheaton, who took the College Prize of £15 and the Mead medal for practical surgery, and who attained the second place in an open competition for the Murchison Scholarship, and Mr. J. Macevoy, who took the College Prize of £10, a bronze medal for practical medicine, and was bracketed equal with Mr. Wheaton in the competition for the Murchison Scholarship; Mr. A. F. Stabb obtained an Entrance Science Scholarship of £100, the William Tite Scholarship of £30, and special mention for practical medicine; Mr. E. Solly took the Solly Medal and a prize of £25; Mr. H. J. Smyth gained the Treasurer's Gold Medal for general proficiency and good conduct; Mr. F. C. Abbott carried off a College Prize of £15, the Peacock Scholarship of 40 guineas, and a certificate of honour; and Mr. C. H. Eccles, a College Prize of £15 and another of £20.

QUEEN'S COLLEGE, BELFAST.—At the General Examinations at the close of the Session 1885-6 the following were awarded prizes:—Practical Chemistry: Robert Thomson and Alexander Jamison. Zoology: Senior Division—James Taylor and J. S. Morrow; Junior Division—E. W. Mc Bride, Douglas Maconachie, John Jamison and H. J. Heron (equal), and Alexander Jamison. Anatomy and Physiology: Third Year—J. L. Livingstone; Second Year—John Campbell; First Year—James Taylor, H. J. Heron and James Mc Connell (equal), John Larkin and Robert Wilson (equal). Practical Anatomy: Third Year—John Campbell, D. C. Smiley, R. C. McCullagh, J. L. Livingstone, R. W. Haslett, F. E. Murray, G. A. Waring (non-mat., hon. mention for Dissecting); Second Year—J. M. Hall, Robert Wilson, W. P. M. Eldowney, and S. J. Parker; First Year—James Fulton, S. H. Withers, John Larkin, and D. H. Hamilton. Medicine: Second Year—W. B. McQuilty, S. R. Collier, and G. S. Thomson; First Year—John Campbell and J. M. J. Downer. Surgery: G. H. Thompson and R. J. Duffin (equal), John Campbell and Simon Ryan. Materia Medica: M. H. Quarry, Andrew Burgess, William Ekin, and J. S. Downer. Midwifery: W. Elliot, J. Campbell, and W. Kilbeen (equal), W. Hamilton and R. Esler (equal), James Hunter and H. L. Mac Kisack (equal, with hon. mention).

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

AIRD, CHARLES, M.B.Aber., has been appointed Assistant Medical Officer to the East Riding Asylum, Beverley, vice Broatch, M.B.Ed.

AUDLAND, W. E., L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the General Infirmary, Northampton, vice J. Oswald Lane, M.D.Cantab., resigned.

CAMPBELL, HARRY, M.D., B.S.Lond., M.R.C.P., has been appointed Assistant Physician to the North-West London Hospital.

ELLIS, WILLIAM HENRY, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health to the Shipley Urban Sanitary Authority.

FITZPATRICK, J. V., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Moville Dispensary District, Public Vaccinator, Sanitary Medical Officer, and Medical Officer to the R. I. Constabulary, vice Sproulle, deceased.

FROST, W. ADAMS, F.R.C.S.Eng., L.R.C.P.Lond., has been appointed Ophthalmic Surgeon to the Victoria Hospital for Children, Chelsea.

HILL, F. A., M.D., M.R.C.S., has been appointed Medical Officer for the Kilburn District of the Parish of St. John, Hampstead.

JOHNSTON, FRANCIS, M.B., C.M.Glas., has been appointed Senior House-Surgeon to the Liverpool Infirmary for Children, vice A. Stookes, M.B., C.M.Edin., resigned.

MITCHELL, ADAM G., L.R.C.S., L.R.C.P.Ed., of the Peninsular and Oriental Steam Navigation Company's Service, has been appointed to the *Sutley*.

MURRAY, ANDREW, M.D., B.Ch., has been appointed Medical Officer for the Hampstead District of the Parish of St. John, Hampstead.

PENNY, WILLIAM J., F.R.C.S.Eng., has been appointed Assistant Surgeon to the Bristol General Hospital.

PENROSE, FRANCIS GEORGE, M.D.Lond., M.R.C.S., has been appointed Medical Registrar to the Hospital for Sick Children, Great Ormond-street.

RANKIN, MALCOLM A., M.D.Glas., has been appointed Medical Officer to the Workhouse of the Luton Union.

RIGDEN, ALAN, L.R.C.P.Lond., M.R.C.S., has been appointed Junior Assistant Medical Officer to the Salop and Montgomery Counties Asylum, Shrewsbury, vice P. M. Earle, L.R.C.P., L.R.C.S.Ed., resigned.

SUCKLING, C. W., M.D.Lond., M.R.C.P., has been appointed Consulting-Physician to the Birmingham Orthopædic and Spinal Hospital.

WITHERS, J. SHELDON, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Officer for the Ashton-on-Mersey District of the Altrincham Union.

Births, Marriages, and Deaths.

BIRTHS.

EMMETT.—On the 26th ult., at Woodville, Portsmouth, the wife of Richard Emmett, M.R.C.S., L.R.C.P.Lond., of a son.

FISHER.—On the 25th ult., at West Walk, Dorchester, the wife of Fred. Bazley Fisher, M.R.C.S., F.R.C.P., of twin daughters.

GARLICK.—On the 22nd ult., at 33, Great James-street, London, W.C., the wife of George Garlick, M.D.Lond., of a son.

GRAHAM.—On the 24th ult., at 17, Queen-street, Wigan, the wife of Charles R. Graham, M.R.C.S., &c., of a son.

THOMPSON.—On the 27th ult., at Suffolk-place, Sevenoaks, the wife of Herbert Thompson, M.R.C.S., of a son.

WEBSTER.—On the 27th ult., at St. Alban's, the wife of F. R. Webster, M.R.C.S., of a son.

WEBSTER.—On the 8th ult., at Golcar, Yorkshire, the wife of A. G. Webster, M.R.C.S., of a daughter.

MARRIAGES.

COOK—CORNWALL.—On the 24th ult., at St. James's Episcopal Church, Aberdeen, James Will Cook, M.B., C.M., of Bury, Lancashire, to Jane MacKay, second daughter of J. R. Cornwall, Esq., of Queen's-road, Aberdeen.

HAYES—MUIR.—On the 24th ult., at the Bowdon Congregational Church, by the Rev. Alexander Mackennal, B.A., and the Rev. Joseph Corbett, D.D., of Glasgow, James Hayes, M.R.C.S., L.R.C.P.Lond., eldest son of John Hayes, J.P., of The Limes, Leigh, to Jessie Geddes, elder daughter of Alexander Muir, of Altrincham.

STEEL—OWEN.—On the 23rd ult., at the Parish Church, Llandilo Pertholey, near Abergavenny, by the Rev. James Owen, uncle of the bride, assisted by the Rev. Allen Steel, uncle of the bridegroom, William Dyne Steel, M.D., of Abergavenny, eldest son of S. H. Steel, Esq., M.B., of Abergavenny, to Mary Emily (Trotide), eldest daughter of His Honour Judge Owen, of Ty Gwyn, near Abergavenny.

STURGE—SHERRIFF.—On the 1st inst., at St. Andrew's Church, Westminster, by the Rev. Melvill Haslope, Wm. Allen Sturge, M.D., of Nice, France, to Julia, daughter of the late A. C. Sherriff, M.P. for Worcester.

DEATHS.

BARRINGER.—On the 23rd ult., at Parkhurst-road, Thomas Stevens Barringer, M.D., in the 75th year of his age.

BATT.—On the 6th ult., at Gloucester, R. B. D. Batt, M.R.C.S., L.S.A., aged 25.

COLE.—On the 27th ult., at Ely, George Cole, Surgeon, aged 79.

OGILVIE-FORBES.—On the 25th ult., at Boyndlie House, by Fraserburgh, Aberdeenshire, George Ogilvie-Forbes, M.D., of Boyndlie, formerly Professor of Institutes of Medicine in the University of Aberdeen, aged 65.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 1st, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 25	30·16	W.	63	57	122	75	53	...	Cloudy
,, 26	30·72	W.	63	57	111	77	56	...	Overcast
,, 27	30·100	N.E.	69	58	115	75	52	...	Hazy
,, 28	30·204	E.	67	61	119	79	58	...	Hazy
,, 29	30·236	E.	66	59	109	80	57	...	Hazy
,, 30	30·282	N.E.	65	59	117	75	59	...	Hazy
July 1	30·300	E.	60	54	116	76	53	...	Bright

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

Letters requiring notice must be authenticated by the name and address of the writer.

We cannot undertake to return MSS. not used.

UNQUALIFIED PRACTICE AND THE NEW MEDICAL ACT.

General Practitioner says: "I have seen some glaring blunders smoothed over by signature of principal, even craniotomy, by an unqualified man, single-handed, and death certificate by principal for both mother and child," and asks, Does the Medical Act affect such cases, or the legal prosecution of the offenders? We are sorry to say the Medical Act leaves this grave question just where it found it, and does nothing to deter offenders. We must trust to coroners and medical men who are called in to such cases for the exposure of a great evil.

Enquirens (Porthleven) is referred to a general notice at the head of this column.

Mr. David Newman (Glasgow).—In about three weeks or a month.

THE POSTAL MICROSCOPICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—Thinking there may be many members of the profession who do not know of the existence of a special Medical Section for the circulation of histological and pathological slides in the above Society, I ask you to insert this letter, in the hope that it may come under the notice of gentlemen interested in pathology, &c., and to ask them to assist the section by becoming members or obtaining friends to do so. The great advantages of the Society are (1) that it takes up very little of their time (only that in which the specimens and notes are examined, and once a year a new selection to be got ready and sent to the secretary to forward on the various circuits), and (2) that members who cannot attend the meetings of societies for various reasons, and those who live too far distant from them, are thus brought into communication, ideas and notes are exchanged, and much useful information is brought to light, the specimens often presenting features of special interest. The section is gradually increasing, and we hope before long to have many more among our ranks. Those gentlemen who were students when pathology and histology were only in their early growth would in this way become acquainted with the progress of the sciences and the various processes used in them. Of course, the slides of the Medical Section are not circulated amongst any but those of their own professional section. Should any further particulars be desired, they can be obtained from the secretary, Mr. Alfred Allen, 1, Cambridge-place, Bath.

I am, Sir, yours truly,

Manchester, June 28th, 1886. V. A. LATHAM.

MEDIÆVAL INNS.

THE pestilences of antiquity and of the Middle Ages were simply the explosions of disease engendered by long periods of insanitary living. Want of cleanliness was prominent among the predisposing causes. In Gustav Peyer's "Geschichte des Reisens in der Schweiz" ("History of Travel in Switzerland") a graphic account is given of the mode in which the wayfarer was housed and entertained in the hostels of the sixteenth century, which may be read as a supplement to the still more graphic description of the same in Sir Walter Scott's "Anne of Geierstein," in the century preceding. In the year 1520 Erasmus wrote to a friend:—"On arriving at your inn, there is no one to receive you, so that there might be no appearance of lying in wait for guests. After you have shouted a long time, a head is thrust out of the little window of the stuffy apartment. You ask for stabling, and the reply is a wave of the hand to the outhouse in question. There you may groom your horse to suit yourself, for no ostler is within reach. Your horse provided for, you make your way, accoutred as you are—boots, baggage, and dirt—to the apartment aforesaid. The room is common to every guest, and there you draw off your boots, replace them by shoes, and even change your linen. On one side of you an 'arrival' is combing his hair; on the other a second is mopping the sweat off his person; while a third is polishing his shoes or riding-boots. You arrive at 4 P.M., but yet you may not dine till 9, or not until 10 P.M.; for the meal is not served till all that the inn can hold have come. As soon as each one has taken his place at table, there enters the sour-visaged Ganymede—grey-bearded, close-clipped as to his head, repulsive of aspect and foul as to his apparel. Then come with great pomp the dishes. Finally the bearded attendant makes his rounds, in his hand the dinner slate, on which he has described with chalk sundry hooks and eyes. Those who can read the hieroglyphics lay down their money on the slate, one after another, till it is covered, and so he marks off those who have paid. No one disputes an unjust reckoning. If, weary from your journey, you wish after supper to go to bed, you are told you must wait till all the other guests are ready to lie down. Then everyone is shown his 'rabbit-hutch'—a bed, and nothing more; for, besides the bed, there is no furnishing to it which you can use. The sheets most likely have not been washed for six months." So, freely translated from his idiomatic Latin, wrote the dainty humanist, whose efforts in behalf of the Reformation were *motivés* by other abuses than those of ecclesiastical authority. In explanation of the remark "that there might be no appearance of lying in wait for guests," Herr Peyer quotes a decree of the Zurich Town Council of 1402, to the effect that "fremdenfängerei"—that is, touting for strangers—was forbidden under severe penalties. Certainly, the landlords of the day did their best to make the enactment superfluous.

Mr. R. T. Thomas.—The possession of the L.R.C.P.Lond. does not entitle its holder to style himself "Doctor" on his door-plate.

APPLICATION OF FORCEPS.

To the Editor of THE LANCET.

SIR,—I fully concur with Dr. Brand of Driffield as to the comparative facility of the application of forceps by introducing the upper blade first; and I have often been puzzled to discover the reason why the text-books, almost, I think, without an exception, recommend the lower blade to be introduced first. Ever since I began practice, nearly fifty years ago, I have used, except in very few cases, the double curved forceps, introducing the upper blade first by the hollow of the sacrum, and gliding it by gentle rotation into position. I then introduce the lower blade, also by the hollow of the sacrum, and glide it into position, when, by gentle manipulation of the handles, the instrument is easily locked. When the operation is performed in this manner, there is no occasion to disturb and alarm the patient by bringing her to the edge of the bed, nor is the aid of an assistant required.

I am, Sir, yours faithfully,

Tring, June 28th, 1886. EDWARD POPE, M.R.C.S.

STRANGE CAUSE OF MUMMIFICATION.

M. BROUARDEL has reported to the Paris Academy of Medicine upon the mummification of the body of a young woman which was found in a heap of straw in a cellar. The cellar had not been opened for eight months. The body was in a remarkable state of preservation. The mummification was due, according to MM. Brouardel and Mégnin, to myriads of acari of various kinds whose eggs were embedded in the tissues.

C. M. M.—The words *wood sorrel* in our last issue should have been in inverted commas, as they were copied from a report of the case in a contemporary. "Wood sorrel" is undoubtedly the popular name for *Oxalis acetosella*. We believe the plant ingested was the sorrel dock (*Rumex acetosa*); possibly it was the sheep sorrel (*Rumex acetosella*).

Dr. Russell (Glasgow).—Bell and Sons, York-street, Covent-garden, London, W.C.

A QUESTION IN MEDICAL ETHICS.

AN ex-medical officer of health, of great practical experience in house sanitation and in tracing diseases to sanitary defects, asks if it would be unprofessional to advertise his services for sanitary house inspection, either openly or under a *non-de-plume*. Hitherto, so far as we know, such a practice has not been resorted to, except in so far as the names of medical advisers to the different sanitary associations are appended to the advertisements of those societies. If such advertising as is indicated in the question put to us were limited to the professional journals, as is the case in respect of the care of the insane, &c., we could hardly raise objection to it; but beyond this the practice is one which we could not advocate.

D. F. (Barrow-in-Furness).—The tragic end of the King of Bavaria has given a fresh start to observations on the "law of hereditariness." Dr. P. Maréchal, in an interesting paper, reminds us that the Royal House of Spain exemplifies a transmitted neuropathy lasting 250 years. John II. was imbecile; Isabella of Portugal mad; Ferdinand the Catholic melancholic; John, surnamed "the Mad," a victim of hallucinations; Mary Tudor hysterical; Charles V. epileptic and superstitious; Philip II., his son, a homicidal mystic; Philip III. first imbecile and then mad; Philip IV. imbecile; and his two sons, Prosper subject to convulsive fits and Charles VI. imbecile, melancholic, and finally mad. With this last, who died without issue in 1700, the family became extinct.

Subscriber.—We should recommend the interior regions of South Africa, Australia, or New Zealand. The towns should be avoided.

OVERCROWDING IN THE PROFESSION.

To the Editor of THE LANCET.

SIR,—I read with some interest a letter in your last issue, signed "L.C.P.S. Que.," pointing out that the profession is "full" in Canada. Will any of your correspondents tell me if they know of any spot in this world where that is not the case? This leads me to ask another question, What may we expect the condition of the profession to be in, say, half a century, if some steps are not taken by those in authority to check in some way the overcrowding which is making itself painfully felt more and more year by year? Month after month we see pass-lists appearing, swelling the tide of practitioners, and making each one's share of bread-and-butter less and more precarious. The inevitable tendency of this must necessarily be to lower the status of the profession in the eyes of the public. I know of very few small towns or country places where there are two or more medical practitioners without a perpetual ill feeling in the said practitioners towards each other, in many cases almost amounting to strife. And why is this? It is because these members of an honourable profession entertain jealous feelings towards one another, the one always apparently thinking that the other intends to let no opportunity pass of robbing his neighbour of his patients. And is this fear wholly without foundation? I grieve to say it is not. A personal friend of mine, a M.D., had recently the pleasing experience of losing a club because a brother practitioner, a M.R.C.S. and L.S.A., kindly undertook the job at a shilling a head less. Then, again, another sign of the overcrowding may be found in the ridiculous salaries which "assistants" may expect to get. I have myself been offered £1 a week for my services, which I was fortunately in a position to decline with thanks; but I have no doubt that there are many working both day and night, with hardly a moment to call their own, at such a fee, and albeit are expected to—and must, indeed—keep up a good appearance on such a pittance. A remedy is not far to seek, if only those who are in authority will exercise their power. Why is it that men (and I have known not a few who have done this), after repeatedly failing at one of our universities, can without trouble obtain a qualification in medicine and surgery at the Colleges?

In conclusion, I would like to ask your correspondent if a graduate in medicine and surgery of a British university cannot practise in Canada without passing an examination in Ontario or Quebec, as he would seem to imply.

I am, Sir, yours faithfully,

Yorkshire, June 28th, 1886. "FELIX HOLT."

CIRCULAR CLINICAL THERMOMETERS.

IN reference to a letter from "M.D. Durh.," in our issue of June 19th, a correspondent writes to ask for further opinions in confirmation or otherwise of the unfavourable testimony therein borne to the value of circular clinical thermometers.

Mr. Tom Lee.—The question surely scarcely requires an answer. The names were fictitious.

DR. ALLEN'S CASE OF EXTRA-UTERINE PREGNANCY.

To the Editor of THE LANCET.

SIR,—Will you allow me to say that the most important lessons of this case are the illustrations it affords of the futility of tapping as a method of diagnosis or treatment and its great dangers. In this case an exploratory incision would have secured at once a correct diagnosis, and would have opened the way to successful treatment.

I am, Sir, yours truly,

Birmingham, June 26th, 1886. LAWSON TAIT.

THE ARCHÆOLOGY OF SURGERY.

J. H. (Carlisle).—Sir James Young Simpson's very clever work on "Acupressure" (Black, Edinburgh, 1864), which, though its *raison d'être* was almost immediately annulled by Listerism, may still be read with profit as a contribution to the history of medicine. It was not till 1564 that surgery, at the instance of Ambroise Paré, revived the deligation of bleeding vessels with simple threads described by Celsus, and substituted it for their cauterisation with red-hot irons. Attempts to find an earlier origin for the ligature have not been successful. In the excellent "Handbook to the National Museum in Naples," its English editor, Mr. H. Neville Rolfe, thus describes the beautiful fresco of Æneas Wounded: "The painting, which is quite unimpaired, represents an episode of the Trojan War. Æneas leaning on his spear, with an expression denoting pain, has his arm round the neck of Julus, who weeps. A surgeon is on his knees, *picking up the artery with forceps*. Other warriors look on, while Venus appears from Olympus with a sprig of balsam." The proper reference is to the Latian War, as told by Virgil, who gives the story of Æneas's hurt in the twelfth book of the Æneid, verse 383 *et seqq*. It was no artery that the surgeon tried in vain to take up in the hero's wound; it was the arrow-head embedded in the tissues that had to be extracted, by one of the methods described by Celsus (Book vii., c. 5, "De Telis e Corpore Extrahendis"). The surgeon failed, as Celsus could have told him he would, and Venus had to interpose with an infusion of Cretan dittany, which, used as a fomentation, caused the arrow-head to drop from the wound without farther ado. So sound a scholar as Mr. Rolfe would do well before adopting the views of his Italian coadjutor to test them by classical authority.

Mr. W. H. Bourke.—No doubt the secretary of the Brussels Medical Graduates' Association, Dr. Pocock, The Limes, St. Mark's-road, North Kensington, will, on application, answer the questions of our correspondent.

Dr. J. Lowe (London).—Yes, if not long.

SEA AIR IN SCROFULA.

To the Editor of THE LANCET.

SIR,—Mr. Frederick Treves, in his able and instructive paper upon the treatment of scrofulous neck (*vide* THE LANCET, June 5th), says:—"In the choice of a sea-side resort, I think it matters little whether the spot be east, west, north, or south, so long as it presents this feature—a beach upon which a large extent of seaweed lies exposed at low water. Iodine is, or can be, obtained from seaweed; and it is reasonable to conjecture that this volatile substance may be given off into the atmosphere when acres of seaweed are drying in the summer sun. An iodine-laden air is an ideal atmosphere for a scrofulous person. Certain it is that those sea towns are most beneficial where this condition is pronounced; and it is to this circumstance, and the fact that it lies surrounded on three sides by the sea, that Margate probably owes its great repute as a place of healing." This question of free iodine in the air under the conditions named is a very interesting one. Upon consulting an eminent professor of chemistry, and recent works upon the subject, I find that it is not universally admitted that atmospheric air ever contains free iodine; if present, the quantity is so small as to render detection almost impossible. Seaweed contains iodides which can be dissolved out of the fresh weed by fresh water; a fall of rain would supply this water. Ozone sets free iodine from iodides, and ozone being always present in good air we might suppose that it would do this. Where, however, large quantities of seaweed are exposed at low water other processes are at work—viz., those of decay and oxidation—which give rise to products the smell of which is probably often mistaken for that of iodine or ozone. These processes use up the ozone, and convert the free iodine, if there is any, at once into an iodide. It has therefore yet to be proved by direct experiment that the air of such places contains free iodine, notwithstanding that Mr. Treves speaks of "an iodine-laden air." The fact that Margate is so freely exposed to the sea air is most probably the cause of the benefit that scrofulous patients receive whilst there. This fact Mr. Treves mentions; and he would probably be disposed to admit that a sea voyage, under favourable conditions, would be even more likely to benefit such patients. This, however, he could not attribute to the seaweed that is in the water, any more than he could the saltness to the salt fish contained therein.

I am, Sir, yours faithfully,

Southport, June 15th, 1886. EDWARD DAY MCNICOLL.

ERRATUM.—In our report last week of the meeting at Lambeth Palace, page 1234, the name of the organiser should have been printed Mr. R. Garrard Kestin, not "Keskin."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Quinlan, Dublin; Mr. W. Whitehead, Manchester; Dr. Harkin, Belfast; Mr. I. Tait, Birmingham; Dr. E. B. Truman, Nottingham; Dr. Donald Hood, London; Dr. Geo. Johnson, London; Sir W. Mac Cormac, London; Dr. Gowers, London; Dr. Broadbent, London; Mr. Mayo Collier, London; Dr. A. Johnson, Wellington, N.Z.; Dr. Manning, Hunter's Hill, N.S.W.; Mr. Piggott, Clare; Mr. E. Pope, Tring;

Dr. Imlach, Liverpool; Dr. J. J. Chisholm, Baltimore; Mr. Stephen Paget, London; Mr. Busé, Slough; Brigade-Surgeon J. B. Hamilton, Lucknow; Mr. N. A. Latham, Manchester; Dr. Wm. Hunter, Edinburgh; Mr. V. Richards, Goalundo; Dr. Borns, Dominica; Rev. H. Layton, Hounslow; Brigade-Surgeon W. Curran, London; Rev. Arthur Robins, Windsor; Mr. G. M. Smith, Clifton; Messrs. McCallan and Co., Ayr; Rev. J. Macdonald, Southall; Messrs. W. H. Smith and Son, Manchester; Rev. J. S. Smith, Enfield; Rev. J. M. Gordon, Redhill; Dr. Tomkins, Leicester; Mr. C. Applegate, London; Rev. R. Nobbs, Upton; Rev. W. E. Hurndall, London; Mr. C. G. Williamson, London; Rev. W. Benham, London; Mr. Parish, Horncastle; Rev. A. Ingleby, Ilford; Mr. Heywood, Manchester; Messrs. Ulbert and Co., Stroud; Mr. Hays, Leigh; Mr. Whitmarsh, Kensington; Dr. Booth, New Jersey; Rev. G. W. Mackie; Rev. T. Hill, Finchley; Rev. Canon Leigh; Rev. T. Scott, West Ham; Mr. J. Girling; Messrs. Wright and Co., Bristol; Rev. J. W. Pratt, London; Rev. J. Snowden, Stamford Hill; Rev. A. S. Palmer, Woodford; Rev. W. Warren, Barnet; Rev. J. Olphert, Harrow; Mr. T. Gwen-Wilson, Plaistow; Mr. R. Bruce Low, Helmsley; Mr. O. B. Shelswell, London; Rev. R. J. Andrew, Kilburn; Rev. J. B. Harbord, London; Rev. R. B. Ransford, Hernehill; Dr. A. Thompson, Ulverstone; Mr. Fullerton, Ryde; Mr. West, Stoke-on-Trent; Rev. J. G. Mills, Enfield; Mr. F. W. Lowndes, Liverpool; Dr. Newman, Glasgow; Mr. Fraser, Middlesborough; Rev. B. Spiers, London; Dr. Hume, Newcastle-on-Tyne; Dr. E. T. Davies, Liverpool; Messrs. Southall Bros., Birmingham; Mr. W. J. Benham, London; Rev. L. Thomas, London; Rev. E. J. Haddock; Dr. Forbes Winslow, London; Rev. R. Glover, Holloway; Messrs. Richards and Co., London; Rev. D. Adler, London; Mr. W. T. Harris; Mr. R. W. Parker, London; Dr. Laseron, Tottenham; Mr. Goulder; Mr. Baker, Newport; Mr. Stickney, Boston; Mr. Bowser, London; Messrs. Austin and Son, Clifton; Dr. Death, Bucks; Mr. Howard; Messrs. Oliver and Boyd; Mr. Burcombe, Lincoln; Mrs. Melton, Darlington; Mr. Ellis, London; Mrs. Pratt, Bournemouth; Mr. Bingham, Uley; Dr. Pearse, Plymouth; Mr. Willey, Sheffield; Mr. Brown, London; Messrs. Bush and Co., London; Dr. Lowe, Whitley; Mr. Gravatt, London; Mr. Fry, Swindon; Rev. T. H. Nicholls, London; Rev. W. G. Horder, Wood Green; C. M. M.; General Practitioner; Enemata; Delta, Worthing; Y.; W. B., Holloway.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Smith, Colchester; Mr. Hedden, Upcott; Dr. Monckton, Marden; Mr. Mason, Highbury; Mr. Pearson, Bristol; Dr. Walker, Middlesbro'; Mr. Allen, Bournemouth; Mr. Overton, Newton-le-Willows; Messrs. Condy and Co., London; Mr. Bowes, Marden; Mr. Wright, Bristol; Messrs. Joy and Son, London; Dr. Harris, Birchington-on-Sea; Messrs. Reynolds and Branson, Leeds; Mr. Williams, Notts; Messrs. Butterfield and Son, Northampton; Miss Carson, Burton-on-Trent; Messrs. Lee and Martin, Birmingham; Mrs. Lambton, Rochdale; Mr. Hayes, Manchester; Dr. Blandford, London; Mr. Reed, Preston; Mr. Kaye, Huddersfield; Mr. Lea, Hampstead; Miss Peck, Bristol; Mr. Morrice, Dover; Mr. Pigott; Mr. Jackson, Bradford; Mr. Johnson, Leicester; Mr. Morgan, Reading; Mr. Bell, Etwall; Mr. Hart, Bath; Mr. Scott, Birmingham; Mr. Brunton, Limehouse; Mr. Robertson, Wellington, N.Z.; Mr. Graham, Wigan; Dr. Liveing, London; Vigilans; Medicus, Sheffield; Medicus, Croydon; Premier; M. D. X.; Doctor, Stoke Newington; Medicus, Liverpool; W. H., Glasgow; Matron, Cardiff Infirmary; M. E. S., St. John's Wood; Experience; G. H., Stone Cross; Medicus, Poplington; Medicus, Tottenham; Alpha, Long Eaton; B. L., Chard; R. H. B. M., Gunnersbury; J. E. C., Forest Hill; D. G. H., Southampton; J. B., Darlington; Walden; S. W. R.

Huddersfield Chronicle, Macclesfield Courier, York Herald, New Zealand Times, Auckland Evening Star, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL INSTITUTION OF GREAT BRITAIN.—5 P.M. General Monthly Meeting.

Tuesday, July 6.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, July 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Daly, Mr. Doran, and others. Dr. Herman: Case of Chronic Abscess of the Urethra.—Dr. Champneys: Observations on the Uterine Bruit.—Mr. Doran: Papilloma of the Fallopian Tube.

Thursday, July 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, July 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 10.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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